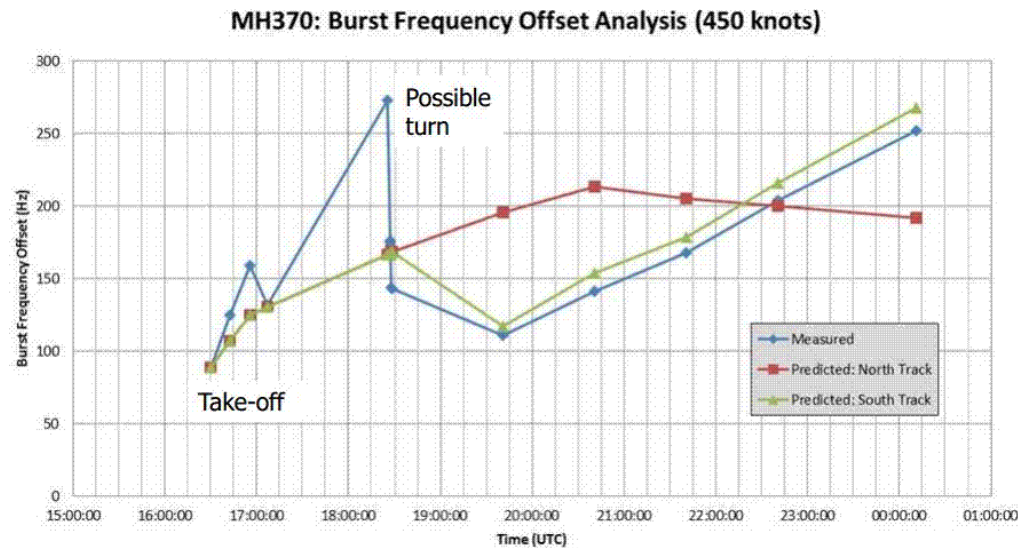


Declassified effects of nuclear weapons and other threats: minimizing weapons effects on civilians

Can Britain and America prevail over an alliance of Russia, China, Iran and North Korea in WWII? American sanctions on Japan in 1940 led to Pearl Harbor on 7 December 1941, so beware of the lessons of history Mr President, and get civil defense

Saturday, March 22, 2014

Britain's 1950 studies of nuclear 9/11 and the disappearance of civilian airliner MH370



Above: Inmarsat MH370 Doppler shift analysis is far from compelling physics. This graph shows a comparison of the Doppler shifts between the satellite and the plane flight MH370, reported by Inmarsat. There are numerous problems with this curve comparison. First, *neither "prediction" has any error bars and neither "prediction" is in very good agreement with the actual data for the early times in the flight, when the flight path was actually being tracked by radar and was well known!* Second, there is no statistical goodness-of-fit (e.g. Chi-squared test), and the reason is obvious why there isn't: they don't have any really good default hypothesis comparisons. All they are doing is guessing two flight paths and then comparing those with the data, and then selecting the nearest fit. [The comments section](#) (below this post) gives some of the errors involved. The northern route had very poor data for comparison with the southern route, and the position of the satellite relative to the two (northern and southern) alternative flight paths did *not* allow the Doppler shift to determine unambiguously which way the plane actually went! In *both* cases, the MH370 was receding from the satellite as it moved along the path, so the signals were "redshifted". Even the amount of "redshift" doesn't allow an unambiguous determination of which path was taken, because assumptions have to be made about flight speed. It's not a clean analysis. There are guesswork variables in the equations, and the data isn't sufficient for a full deterministic analysis.

"The first casualty when war comes is truth." - US Senator Hiram Warren Johnson, 1918. (Attrib.)

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UK National Archives AVIA 65/2055

I.R.(50) 7

29TH NOVEMBER, 1950.

MINISTRY OF DEFENCE

- (a) concealing a complete atomic bomb in the hold of a merchant ship coming from a Soviet or satellite country;
- (b) disguising an atomic bomb by breaking it down into a number of parts and making them up as merchandise; this could be done on any merchant ship but more easily and safely on one coming from a Soviet or satellite country;
- (c) the detonation of an atomic bomb in a "suicide" aircraft flying low over a key point.

Detonation in a Civil Aircraft (Method (c))

12. Method (c) mentioned in paragraph 3 above - the use of a civil aircraft carrying an atomic bomb to be exploded at a low altitude - we do not consider so likely as the use of a merchant ship; nevertheless it is possible and there does not

seem to be any answer to it. The crew of the aircraft in order to detonate the bomb at the right time would have to know what their cargo was and would therefore be a suicide squad. Short of firing on every strange civil aircraft that appears over our shores we know of no way of preventing an aircraft that sets out on such a mission from succeeding.

<https://archive.org/stream/WarPlanUK/War%20Plan%20UK#page/n16/mode/1up>

Above: Professor Peter Hennessy in his 2002 book *The Secret State* disclosed the existence of Britain's 1950 "nuclear 9/11" secret plans. Conventional thinking about "alliances" in war was debunked in 1984 by Prime Minister Maggie Thatcher in her conversation to Soviet Premier Mikhail Gorbachev (Richard Aldous, *Reagan and Thatcher: The Difficult Relationship*, Hutchinson, London, 2012, p277): "Nations have no permanent friends or allies, they only have permanent interests." (See previous post, linked here, for a detailed discussion of the very difficult problem of forecasting alliances in war plans.)

12 Daily Express Wednesday March 26 2014



POWER: Pro-Russian protest in Odessa, Ukraine

Behind Stalin's Iron Curtain lay the Soviet Empire. It consisted of Russia herself, the 14 dominions that made up the inner empire and the nine satellites or colonies of eastern Europe that completed the Warsaw Pact. Today, to the enraged chagrin of Vladimir Putin, the map has been entirely redrawn.

THOSE who redraw it were partly the peoples of the satellites who, perceiving that their coloniser was crumbling from within and teetering upon bankruptcy, rose in revolt.

The East Germans simply tore down the Berlin Wall. The Czechs, who had been savagely repressed in 1968, lost their fear and opened the borders to Germany and Austria. The Hungarians, who had been even more brutally beaten into submission in 1956, did the same.

The then master of the USSR, Mikhail Gorbachev, completed the job. He dissolved the empire and abolished world Communism. And the 46-year-old Cold War was over.

But a quiet, ice-eyed former KGB policeman, by then a civil servant in Leningrad, soon renamed St Petersburg, never forgave him. That KGB hood is Vladimir Putin. He is on record


Frederick Forsyth
Daily Express columnist

as saying the dissolution of the Soviet Empire was the greatest political crime in the history of the world.

But facts are facts. East Germany was absorbed into Germany proper. Poland, Latvia, Lithuania and Estonia are now part of both the EU and Nato. Ditto Hungary, Czechoslovakia (now the Czech Republic and Slovakia). Ditto Bulgaria and Romania - inside the EU.

The new line shuts off the old inner core of the USSR - Belarus, the giant Russian Republic, Ukraine, Georgia, Armenia and Azerbaijan. Out of these Putin is determined to restore as much of the Russian Soviet fiefdom as he can.

This is Russia reverting to type. She has always been a conqueror of her neighbours, right back 1,000 years to when the Russian civilisation occupied a few miles surrounding the ancient fortress of Moscow, called the Kreml or Kremlin.

If you disbelieve me, look at the teeming hordes of ordinary Russians cheering their heads off. The statues of Stalin are going back up. His genocides are irrelevant. He conquered - that was what mattered. Now Putin, behind those blank blue eyes, is doing the same.

There has long been an argument: is there such a thing as national character? I believe yes. For Russia it is the ultra-suspicion of the foreigner, amounting to paranoia. For the Kremlin Russia is surrounded by foreign enemies, all seeking to do her down. Thus she must always defend herself by counter-attack.

'This is simply Russia reverting to type'

Frederick Forsyth, author of nuclear weapon clandestine attack best-seller *The Fourth Protocol*, commenting that Russia's Putin the Great is just "reverting to type", Daily Express (full article linked here).

THE NUMBER OF ATOMIC BOMBS EQUIVALENT TO THE LAST WAR AIR ATTACKS ON
GREAT BRITAIN AND GERMANY

UK National Archives HO 225/16, 30 January 1950, Top Secret

Summary

During the last war, a total of 1,300,000 tons* of bombs were dropped on Germany by the Strategic Air Forces. If there were no increase in aiming accuracy, then to achieve the same total amount of material damage (to houses, industrial and transportation targets, etc.) would have required the use of over 300 atomic bombs together with some 500,000 tons of high explosive and incendiary bombs for targets too small to warrant the use of an atomic bomb.

This figure for the weight of H.E. equivalent to the atomic bomb for causing casualties increases as the amount of protection of the population increases. Thus for the night raiding conditions on London in the last war, where something like 60% of the population were in houses, 35% in shelter and 5% in the open, the number killed in inner London per ton of bombs was about 4. For corresponding conditions of exposure it is considered that the deaths from an atomic bomb would be of the order of 25,000, giving an H.E. equivalent of just over 6,000 tons. Taking, therefore, 6,000 tons as the average equivalent for last war conditions of exposure in this country, we get that the 75,000 tons of bombs dropped by the German Air Force were equivalent for causing casualties to about 12 atomic bombs dropped with the accuracy actually achieved by the G.A.F., or to about 3 atomic bombs accurately placed at the centres of big cities.

a much greater total area of damage would be achieved by splitting the mass up and having a number of small explosions rather than one very large explosion. This, of course, is what happened in air attacks with high explosive bombs in the last war.

The use of a small number of nuclear weapons on modern concrete Western cities would simply *not* be as severe as WWII air raids, where cheap and cheerful civil defence countermeasures saved many lives, as proved in this secret British 1950 report comparing WWII casualties and damage to a limited but still appreciable nuclear war ([click here for the compendium of declassified documents](#))!

Herman Kahn's Nuclear Escalation Ladder	
From his <i>On Escalation: Metaphors and Scenarios</i> , N.Y.: Praeger, 1965, Figure 13.4, p. 39.	
Exemplary Central Attacks	31. Reciprocal Reprisals 30. Complete Evacuation (Approximately 95%) 29. Exemplary Attacks on Population 28. Exemplary Attacks Against Property 27. Exemplary Attack on Military 26. Demonstration Attack on Zone of Interior
(Central Sanctuary Threshold)	
Bizarre Crises	25. Evacuation (Approximately 70 per cent) 24. Unusual, Provocative, and Significant Countermeasures 23. Local Nuclear War – Military 22. Declaration of Limited Nuclear War 21. Local Nuclear War – Exemplary
(No Nuclear Use Threshold)	
Intense Crises	20. "Peaceful" World-Wide Embargo or Blockade 19. "Justifiable" Counterforce Attack 18. Spectacular Show or Demonstration of Force 17. Limited Evacuation (Approximately 20 per cent) 16. Nuclear "Ultimatums" 15. Barely Nuclear War 14. Declaration of Limited Conventional War 13. Large Compound Escalation 12. Large Conventional War (or Actions) 11. Super-Ready Status 10. Provocative Breaking Off of Diplomatic Relations
(Nuclear War is Unthinkable Threshold)	
Traditional Crises	9. Dramatic Military Confrontations 8. Harassing Acts of Violence 7. "Legal" Harassment – Retortions 6. Significant Mobilization 5. Show of Force 4. Hardening of Positions – Confrontation of Wills
(Don't Rock the Boat Threshold)	
Subcrisis Maneuvering	3. Solemn and Formal Declarations 2. Political, Economic, and Diplomatic Gestures 1. Ostensible Crisis
_____ Disagreement – Cold War _____	

So, "why on earth would a country use clandestine cover to start a war?" you ask...

"Sink the Maine again" - President Kennedy's infamous proposal of October, 16, 1962

On February 15, 1898, America used the sinking of its own ship, the USS Maine, off Havana as a deliberate excuse to start the Spanish-American War over Cuba on April, 25 1898, by alleging falsely that it was sunk by a Spanish mine. Other countries like Russia might make such plans in order to "justify" the outbreak of war. Even the Kaiser in 1914 and Hitler in 1939 used contrived excuses to get into war. As Herman Kahn pointed out on page 403 of his 1960 *On Thermonuclear War*, warmongers are dishonest, and use pacifist camouflage: "At no time did Hitler threaten to initiate war against France and England. He simply threatened to 'retaliate' ... The technique he used is such

an obvious prototype for a future aggressor armed with H-bombs that it is of extreme value to all who are concerned with the problem of maintaining a peaceful and secure world ...” What’s curious here is that two years after Herman Kahn’s book was published, Kennedy found himself in the crisis hotseat, and behaved **just as Kahn predicted** (see **link here to Kennedy’s ultimatum and Khrushchev’s climbdown, trading the brand new IRBMs in Cuba for NATO’s obsolete Jupiter missiles in Turkey plus a promise not to invade Cuba as part of the deal, after threatening an all-out attack on the mainland USSR if just a single IRBM was launched by Castro; Kennedy had already in 1961 after the Berlin crisis implemented Kahn’s June 1959 argument in testimony at Congressional Hearings on nuclear war for civil defense fallout shelters in public buildings and stocked them with food and radiation meters**).

The USS Maine was a **convenient contrived excuse for democratic America to declare a war**, keeping the pacifists from vetoing the decision. **(In 1976, nuclear submarine inventor Admiral Hyman G. Rickover reviewed all the evidence and discovered that the Maine’s damage was inconsistent with a mine explosion, but could have been caused by a coal dust explosion aboard the ship, i.e. an American accident and nothing to do with Spain.)** The “Maine” method of starting war was also *infamously touted* on October 16, 1962 by *President John F. Kennedy* during the Cuban missiles crisis, to argue for considering such an excuse to invade Castro’s Cuba and destroy the 42 Russian IRBM nuclear missiles (there were also short range tactical nuclear weapons on Cuba that Kennedy was unaware of, being too small to see in U2 photos). Kennedy’s tape-recorded words survive from 16 October 1962 to forever haunt the appeasement lobby and the disarmers:

“... the argument ... whether we should just get into it and get it over with and say that, uh, take our losses ... there is some other way we can get involved ... whether there’s some ship that, you know, sink the Maine again or something.” (Source: second Excomm meeting transcript, October 16, 1962.)

The **militant “pacifists”** forget or downplay this Hawkish “sinking the Maine again” idea, even though America still had a great overall nuclear superiority under President Kennedy’s leadership in late 1962. *The quickest way to disarm a nuclear opponent is simply to blow up them up before they wipe you out*, and that’s exactly why in the second Excomm meeting on October 16, 1962, President Kennedy proposed just three options, all military and all highly aggressive:

1. a “surgical” strike on the Russian IRBMs in Cuba,
2. a general military air strike on Cuba, and
3. an invasion of Cuba.

Contrary to *Dr Strangelove*-type Cold War Hollywood fiction, in 1962 the *president* first wanted military action, and it was the *military that talked him out of it*. **The tactical nuclear weapons expert, Chairman of the Joint Chiefs of Staff, General Maxwell Taylor (who had recently attended the Nevada nuclear test firing of the smallest ever nuclear weapon, the 18-22 tons of TNT yield nuclear Davy Crockett, a Nevada tactical battlefield nuclear test in preparation for an invasion of Cuba which was also attended by so-called peacenik Attorney General Robert Kennedy) was**

the first person to propose the blockade of Cuba, before Defense Secretary McNamara eagerly seized on Taylor's idea. Attorney-General Robert Kennedy, who was General Taylor's companion at the "Little Feller" codenamed Nevada tactical nuclear bomb test, was also in the nuclear Hawk camp, on October 16, 1962 planning an invasion of Cuba to overthrow Castro, and asking Taylor to predict how long it would take. Robert Kennedy wrote in a note to the president: "I now know how Tojo felt when he was planning Pearl Harbor." A political expedient, Robert Kennedy doesn't hype up his Hawkishness in his 1969 Cuban missiles crisis book, "Thirteen Days" (written to help him win the Democratic presidency ticket, against Lyndon Johnson).

The “appeasement racket”

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January 17, 1983

National Security Decision
Directive Number 75

Declass. and Release
under provision E.O. 12356
by D. Van Tassel, National Security Council
894-1102

U.S. RELATIONS WITH THE USSR (S)

U.S. policy toward the Soviet Union will consist of three elements: external resistance to Soviet imperialism; internal pressure on the USSR to weaken the sources of Soviet imperialism; and negotiations to eliminate, on the basis of strict reciprocity, outstanding disagreements. Specifically, U.S. tasks are:

1. To contain and over time reverse Soviet expansionism by competing effectively on a sustained basis with the Soviet Union in all international arenas -- particularly in the overall military balance and in geographical regions of priority concern to the United States. This will remain the primary focus of U.S. policy toward the USSR.
2. To promote, within the narrow limits available to us, the process of change in the Soviet Union toward a more pluralistic political and economic system in which the power of the privileged ruling elite is gradually reduced. The U.S. recognizes that Soviet aggressiveness has deep roots in the internal system, and that relations with the USSR should therefore take into account whether or not they help to strengthen this system and its capacity to engage in aggression.
3. To engage the Soviet Union in negotiations to attempt to reach agreements which protect and enhance U.S. interests and which are consistent with the principle of strict reciprocity and mutual interest. This is important when the Soviet Union is in the midst of a process of political succession. (S)

In order to implement this threefold strategy, the U.S. must convey clearly to Moscow that unacceptable behavior will incur costs that would outweigh any gains. At the same time, the U.S. must make clear to the Soviets that genuine restraint in their behavior would create the possibility of an East-West relationship that might bring important benefits for the Soviet Union. It is particularly important that this message be conveyed clearly during the succession period, since this may be a particularly opportune time for external forces to affect the policies of Brezhnev's successors. (S)

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- Maintenance of a strategic relationship with China, and efforts to minimize opportunities for a Sino-Soviet rapprochement.
- Building and sustaining a major ideological/political offensive which, together with other efforts, will be designed to bring about evolutionary change of the Soviet system. This must be a long-term and sophisticated program, given the nature of the Soviet system.
- Effective opposition to Moscow's efforts to consolidate its position in Afghanistan. This will require that the U.S. continue efforts to promote Soviet withdrawal in the context of a negotiated settlement of the conflict. At the same time, the U.S. must keep pressure on Moscow for withdrawal and ensure that Soviet costs on the ground are high.
- Blocking the expansion of Soviet influence in the critical Middle East and Southwest Asia regions. This will require both continued efforts to seek a political solution to the Arab-Israeli conflict and to bolster U.S. relations with moderate states in the region, and a sustained U.S. defense commitment to deter Soviet military encroachments.
- Maintenance of international pressure on Moscow to permit a relaxation of the current repression in Poland and a longer-term increase in diversity and independence throughout Eastern Europe. This will require that the U.S. continue to impose costs on the Soviet Union for its behavior in Poland. It will also require that the U.S. maintain a U.S. policy of differentiation among East European countries.
- Neutralization and reduction of the threat to U.S. national security interests posed by the Soviet-Cuban relationship. This will require that the U.S. use a variety of instruments, including diplomatic efforts and U.S. security and economic assistance. The U.S. must also retain the option of using of its military forces to protect vital U.S. security interests against threats which may arise from the Soviet-Cuban connection. (S)

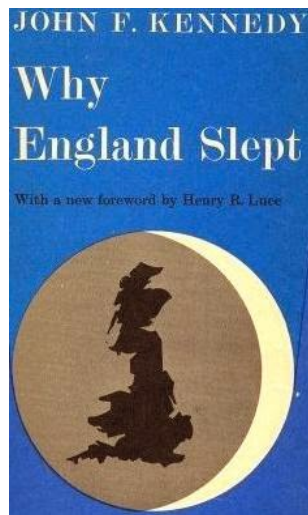
Articulating the U.S. Approach: Sustaining Public and Congressional Support

The policy outlined above is one for the long haul. It is unlikely to yield a rapid breakthrough in bilateral relations with the Soviet Union. In the absence of dramatic near-term victories in the U.S. effort to moderate Soviet behavior, pressure is likely to mount for change in U.S. policy. There will be appeals from important segments of domestic opinion for a more "normal" U.S.-Soviet relationship, particularly in a period of political transition in Moscow. (S)

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There are “war rockets”, but there are also “peace rockets” or “appeasement rockets” as President John F. Kennedy proved in his 80,000 copy warmly-received bestselling British book, *Why England Slept*. Here are the facts of the “appeasement racket”:



NEUTRALITY UNDER DIFFICULTIES.

DIET. "BULGARIAN ATROCITIES! I CAN'T FIND THEM IN THE 'OFFICIAL REPORTS'!!!"

Appeasement following the Crimean War: UK Prime Minister Benjamin Disraeli refused to act after Turkish actions in Bulgaria, a policy of appeasement. (Punch, 5 August 1876.)

William E. Gladstone argued for intervention against Turkey. Once Disraeli was out of office and Gladstone was in, appeasement was replaced by interventionism again. Gladstone invaded Egypt in 1882, action lasting 73 years. The reason for Gladstone's invasion? Muslim extremism!

For the history of the Crimean War between Britain and Russia in the 1850s and stark reasons why it was a terrible disaster, [please see the previous post, linked here.](#)

PRIME MINISTER TONY BLAIR REJECTING APPEASEMENT OF SADDAM HUSSEIN:

"I cannot say that this month or next, even this year or next, Saddam will use his weapons. But I can say that if the international community, having made the call for disarmament, now, at this moment, at the point of decision, shrugs its shoulders and walks away, he will draw the conclusion that dictators faced with a weakening will always draw: that the international community will talk but not act, will use diplomacy but not force. We know, again from our history, that diplomacy not backed by the threat of force has never worked with dictators and never will."

Also: "If we had acted as we should have done in Bosnia or Rwanda, many lives would have been saved."

Commenting on this Blair "spin" in his new 2014 book, "The Postwar Legacy of Appeasement" (published by Bloomsbury, London) author R. Gerald Hughes opined:

"The British government's decision to support regime change in Afghanistan and Iraq undoubtedly arose, at least in part, from charges of appeasement for having hesitated to act against Milosevic for too long, and for then leaving him in power once the Kosovo War had ended. Blair was determined that no such accusations would be made against him after the terrorist attacks of 11 September 2001. Prime Minister Blair therefore strongly supported President George W. Bush in his invasions ..."

Hughes also notes on page 220 an interesting cameo about the Russians:

"In 1961, Adenauer advised President John F.: **'In the centuries of Czars, at least since Peter the Great, Russia was already aggressive and intent upon constantly increasing its territory, especially towards the West ... Communism has not weakened Russian nationalism; on the contrary, it has strengthened it [likewise for Vietcong communists in North Vietnam during the Vietnam war]. Mr Khrushchev, too, in my opinion is primarily a Russian nationalist and only secondarily a Communist.'**" (JFKL: POF Box 117, Adenauer to Kennedy, 4 October 1961.)"

Of course this is true: the USSR never achieved communism, which is the end of inequality due to money and leadership. It was always the precise opposite of Marx's dream of peaceful equality. As socialist and true Marxist George Orwell and also Stalin's critic Leo Trotsky complained, the USSR wasn't communist but was an unequal dictatorship, worse in many ways (including the number of people murdered by the purges in the 1930s) than Hitler's version of "national socialism". It is a common propaganda ploy by disarmament fanatics to paint a glowing Marxist picture of the USSR, omitting the gulag, the salt mines, the fact that only a small percentage of the people in the USSR had privileged status as Communist party members. Conflating dictatorial socialism with utopian communist pipe dreams is sheer propaganda. Russians were never communists.

They were and are dictators, warmongers, and crazy, dangerous, imperialist loons. Leonid Brezhnev was a drug addict, disappearing regularly due to overdoses of sedatives and vodka as he played his dangerous game of Russian roulette with SS-20 missile deployments and aggressive invasions his neighbours. We invaded Afghanistan to stop terrorism and introduce freedom and democratic reform; the USSR invaded it in an act of terrorism to introduce dictatorship and oppression, as part of the expansion of the USSR. (Prague Spring 1968, Afghanistan 1979, plus a whole load of "domino effect" invasions and revolutions in South America and Africa during the 1970s when the USSR achieve parity and beyond in the arms race.) Today, former KGB thug President Putin and his cronies express dismay that the USSR fell apart, and feel able to turn to expansionism again now that, as in the 1970s, left wingers have bankrupt the West with debt and crippled military expenditure on deterrence, have weakened national resolve, and have destroyed Western civil defense. **The Cold War wasn't a quarrel in a far away country: there were real "reds under the beds" in England too, e.g. in the disastrous 1978-9 "winter of discontent," when there was a 3 day week and the dead were unburied, thanks to red union strikes influenced by the Kremlin from Moscow. Russian propaganda pushed by CND also stopped American deployment of the neutron anti-tank invasion bomb and delayed other tactical nuclear weapons, thereby allowing the massive Red Army to invade Afghanistan unopposed.**

We could not stop or deter the Red Army by our pathetically small conventional army, only by deterrence from the threat of tactical nuclear warfare. The Red's T54 tanks were no match for our tanks or even hand-held anti-tank rockets on an individual one-to-one basis, but the Reds used them in massive dense, close packed squadrons which simply overcame opposition by sheer numbers, as in WWII when inferior Red armour defeated superior German tanks. If you have enough sticks and stones, you can kill more people than you can using the most elaborate hi-tech weapon. It's not just quality that counts, its quantity. When I started learning maths at school, we had were all forced to attend a lecture on military mathematics during the Cold War at Surrey University mathematics department in Guildford, to be brainwashed in the practical utility of the calculus for politics and military strategy. The lecturer impressively applied the "Lancaster equations" to data on casualty rates during the horrific battle of Iwo Jima, thereby proving graphically the famous statement of Sir William Slim: "The more you use, the fewer you lose!" The costs of conscripting a massive non-nuclear army to stand up to Russia would have bankrupt us, while the casualties from such a massive amount of blatant militarism would have exceeded nuclear deterrence. This is why we must never listen to the "communist equality" argument for preventing war by trying to match the military forces of our enemies. (If a war breaks out with "equal arms", we haven't a hope against die-hard enemy fanatics.)

APPEASEMENT OF HITLER BY PRIME MINISTER CHAMBERLAIN, MUNICH 1938:



Prime Minister Chamberlain and Hitler, September 22, 1938, Bad Godesberg



The Munich agreement signed by Hitler, waved and
(Prime Minister Neville Chamberlain at Heston Airpo

"If you have sacrificed my nation to preserve the peace of the world, I shall be the first to applaud you. But, if not, gentlemen, God help your souls." – Czechoslovakian Ambassador Jan Masaryk to British government Nazi appeasers Chamberlain and Halifax, September 1938.

"I still recall the mingled relief and shame with which I heard the news of the Munich settlement [the September 1938 deal between Chamberlain and Hitler to give the Sudetenland to Germany in exchange for a worthless signed deal by Adolf Hitler, promising peace in our time]." **– 1976 Prime Minister James Callaghan.**

"... if history, and especially recent history, teaches us anything, it is that a policy of weakness and appeasement is more dangerous than a policy of straightforwardness and firmness. In feebleness and uncertainty, and not in strength and resolution, lie the seeds of war." – Prime Minister Harold Macmillan.

(Note that on 25 July 1955, Macmillan as Chancellor, reviewing the 1955 Geneva Conference, expressed astonishment that disarmament lobbies wanted a return to the huge conscripted non-nuclear conventional armies; see Peter Catterall, "The Macmillan Diaries: The Cabinet Years, 1950-1957", London, 2003, p459. **Macmillan had earlier, on 4 December 1954, as British Defence Secretary produced the first secret British Cabinet report on how to cheaply protect and survive H-bomb blast and fallout effects. Macmillan also chaired the Strath report meeting, which concluded that cheap and cheerful civil defence was an effective answer to a bit of blast, heat or dust from nuclear explosions. Somehow, he just didn't grasp that, since the secret civil defence nuclear weapons effects mitigation documents were not in the newspapers, the public was irrationally terrorized by Russian and communist disarmament propaganda lobbies, as a part of the "cold war" peace offensive.)**

"Saddam Hussein was a more hateful and murderous dictator than Nasser [of Egypt] but neither was so formidable a threat to the Middle East, or to British interests, that all techniques of containment and deterrence [don't forget civil defence, matey, since you were Home Secretary in the early 1980s, defending civil defence, after Maggie rolled out the Protect and Survive UK government householders civil defence manual to combat Brezhnev's new SS-18s plus invasions of Afghanistan and half the planet] were doomed. In each case the failure of appeasement in the 1930s was wheeled out to create a false justification for war." – **Douglas Hurd, 1980s Home Secretary with responsibility for UK civil defence against Russian WMDs.**

"I told the [UN] Security Council on 5 February [2003], the UN's pre-war predecessor, the League of Nations, had the same fine ideals as the UN. Yet the League failed because it could not create actions from its words: it could not back diplomacy with a credible threat and, where necessary, the use of force. Small evils therefore went unchecked, tyrants became emboldened, then greater evils were unleashed. At each stage, good men and women said, 'Not now, wait, the evil is not big enough to challenge.' Then, before their eyes, the evil became too big to challenge. We had slipped slowly down a slope, never noticing how far we had gone until it was too late. We own it to our history as well as to our future not to make the same mistake again." – Jack Straw, Labour Cabinet Minister, 2003.

Britain's Labour Party in the 1930s had been as pacifist as the Conservatives and Liberals in appeasing Hitler, with few exceptions. Labour Party MP Ernest Bevan in 1935 was an exception, warning that the evil of peace under Nazi domination would be worse than the exaggerated horrors of gas, incendiary bomb firestorms, and air raid blasts. Like the Conservative's Winston Churchill, Bevan was simply made an outcast of the ruling elite and sidelined. After World War II, Bevan had his revenge on his appeasing, pacifist Labour party colleagues in a very dramatic fashion. First, in 1946 as Foreign Secretary, Ernest Bevan during a secret Cabinet GEN-75 meeting on nuclear weapons, used the example of the failure of appeasement in the 1930s as a justification for building the independent British nuclear bomb:

"... we've got to have this thing over here whatever it costs! We've got to have the bloody union jack on top of it!" (Quotation: Peter Hennessy, "Cabinets and the Bomb", 2007, p7.)

Bevan wasn't done. He wanted open discussion of the perils of appeasement, not just swearing about it in secret Cabinet meetings. Bevan really got his satisfaction on appeasement with this famous rhetorical speech threatening his resignation from the party to the 1950 Labour Party Conference:

"Can you lay down your arms and be safe? China had no arms and Japan walked in, Abyssinia had no arms and Mussolini walked in ... Czechoslovakia had no arms and a coup d'etat was carried out ... Inside the Iron Curtain ... there is no freedom. Do you want that to be extended? Would you sit down and let it be extended? I could not. I would not be a member of a party that decided that it was their policy, and I do not believe you could either."

The secret early report on the Russian nuclear threat, NSC 68, used the 1938 Munich appeasement disaster as a warning from history, as did President Truman in his public justification for fighting the Korean War of 1950-3, likewise did President Kennedy refer to appeasement during his famous 22 October 1962 TV address on the Cuban missiles crisis. Despite all this, the hard left wing academics developed "Godwin's Law" to prohibit the learning of lessons from the appeasement of Adolf Hitler:

"I trust that a graduate student some day will write a doctoral essay on the influence of the Munich analogy on the subsequent history of the twentieth century. Perhaps in the end he will conclude that the multitude of errors committed in the name of 'Munich' may exceed the original error of 1938." – Arthur Schlesinger, Jr.

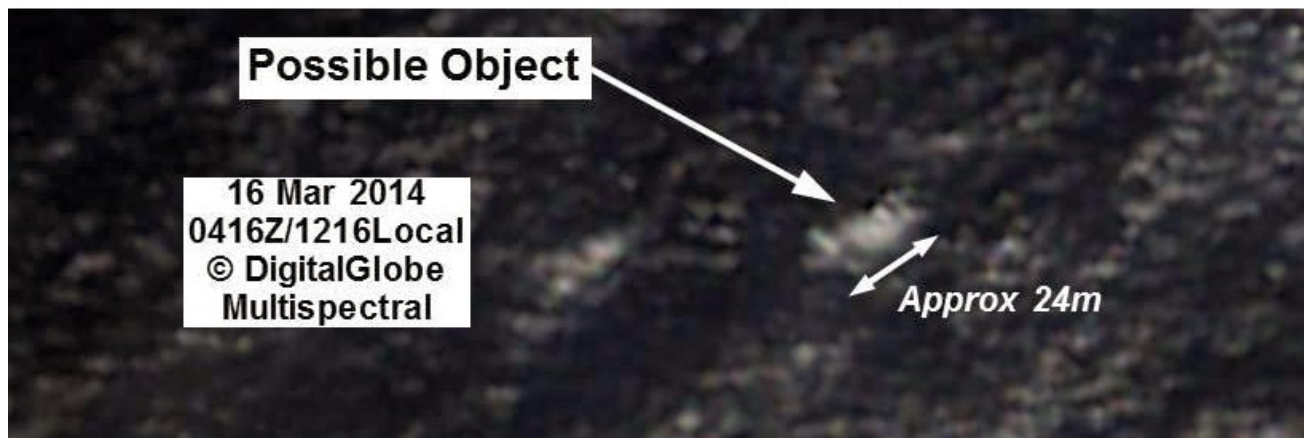
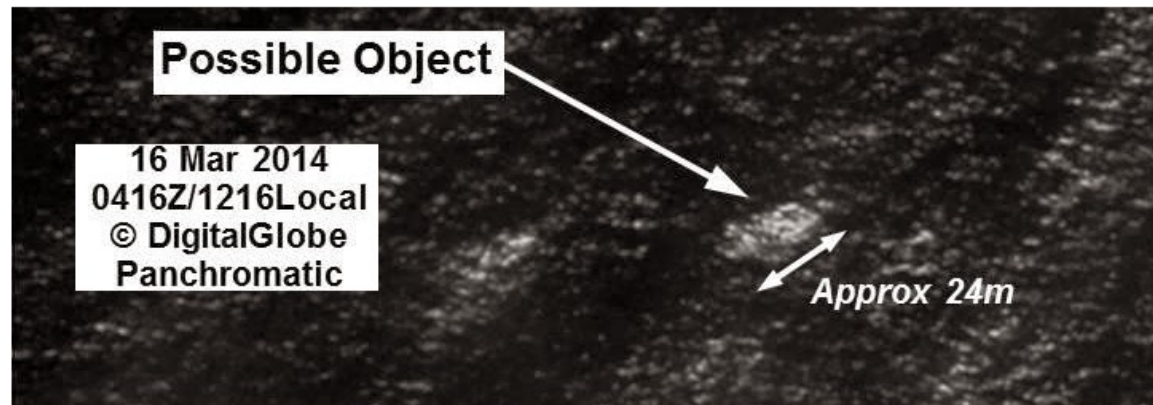
Well, **Schlesinger, it was NOT just Munich 1938 where appeasement failed! As our previous post proved beyond all doubt, appeasement of the Kaiser in 1914 by Britain's Foreign Secretary Edward Grey also led to WWI. So you have two world wars caused by appeasement. Then the Cold War, because it started by Winston Churchill's appeasement of Stalin at Yalta. Churchill made the same error as Chamberlain, taking years before he gave his "Iron Curtain" speech. Even the best men can be duped. Prime Minister John Major adopted a policy of appeasement (hiding behind the cover of League of Nations style "united nations" procrastination) to allow genocide in Bosnia.**

The problem with Saddam Hussein wasn't that he was fought a decade ago: the problem was that he wasn't fought much earlier in 1984 (Iranian war, mustard gas etc) or 1988 (Sarin nerve gas on Kurds in Iraq) when he was a murderous thug, using gas against "his own people" (he didn't count the Kurds as human, let alone "his own people") and the Iranians. **It was appeasement of Saddam in the 1980s, as well as other militant dictators, which allowed the jihad terrorist events of 2001.** America convinced terrorists that it was too chicken yellow to fight back if attacked, then it got what always occurs when someone is nice to aggressive, arrogant, warmongering thugs. It got war. If good people were more war-minded and promoted the cause of justice with more strength, we could wipe out evil. **Instead, we're endlessly sold the appeasement racket, the weapons effects exaggeration racket, and the civil defense is hopeless racket, so we're endlessly coerced by our own scientifically illiterate or corrupt "journalists" into appeasing the wicked, into collaborating and welcoming evil, and into shaking hands with evil in the name of Christ! (See the Frankie Goes to Hollywood "Two Tribes" Moscow-leaning propaganda video which argued that Reagan should make peace with Russia, in order to protect the West by preventing WWII.)**

Now, back to the the worst case scenario for flight MH370. What is the worst outcome that may arise? First, take a look at satellite photos from the southern Indian ocean (bwlow), south west of Australia, allegedly showing a 24 metres long white-coloured plane "debris" from Malaysian Airlines flight MH370, but these are **very poor resolution photos (due to security restrictions on satellite photos)** - see **this report on satellite photo resolution security restrictions** - which look like clouds. What's the probability of mistaking a couple of small random bits of cloud for debris? The probability is affected by Professor Richard P. Feynman's "licence plate coincidence" argument (when you look at a vast amount of data, you will occasionally spot coincidences that spot unusual without any causal connection being involved, similarly a million monkeys at a million typewriters for a million years will occasionally type out coherent sentences). Are there any experts in satellite photos of clouds who can provably tell the difference between a blurry picture of a white cloud, and a blurry pic of a white plane hull? The last tracking signal suggested that the plane either went south or north. Logically, if it went south – headed for Antarctica – the pilot must have been dead (decompression disaster) or crazy. I don't see what motivation there is to fly south.

Only if it went north, is hijacking a real possibility. As a corollary: the plane can't have gone south by accident, simply because the autopilot couldn't have changed the course to a heading for Antarctica. Logic suggests that because it changed course, and there's no motivation to fly south, it must have gone north, and must have been hijacked. (This logic may be wrong due to incomplete data - the pilots may indeed have simply gone crazy and crashed the plane in a suicide bid after changing course south, but nevertheless it suggests at least some *risk* of sophisticated terrorism.) In the spirit of Herman Kahn, who told Freeman Dyson that you needed to be paranoid to predict the December 7, 1941 attack on Pearl Harbor by Japan after America declared sanctions on Japan in 1940 (due to its invasion of Indochina), let's examine the "worst case" scenario for hijacked flight MH370, i.e. a coming nuclear 9/11 attack. It's extremely interesting how the anti-nuclear, pro-disarmament agenda lobby always exaggerate the risk of a full-scale, all-out nuclear war, while always underplaying or totally ignoring or ridiculing the risk of smaller-scale clandestine nuclear terrorism!

Possibly Associated With MH370 Search



COORDS: 43:58:34S 090:57:37E



UNCLASSIFIED



Australian Government

Department of Defence
Intelligence and Security

"Recognizing the ability of U.S. commercial imagery providers to contribute more substantially to the national security mission at a lower cost

point, and consistent with the U.S. policy of enabling U.S. companies to maintain a leadership position in this industry, the Committee encourages the GEOINT functional manager and the DNI to promptly review this licensing request. The Committee is concerned that foreign commercial imagery providers may soon be able to provide imagery at or better than the currently allowed commercial U.S. resolution limit of 0.5 meters. As foreign firms approach or surpass this level of resolution, current restrictions on U.S. commercial imagery data providers put the United States at a competitive disadvantage and may harm an industrial base that is important to national security." - US Senate report, 13 November 2013 on satellite photo resolution restrictions.



<http://beforeitsnews.com/alternative/2014/03/red-alert-flight-mh-370-hijacked-for-nuclear-terror-strike-on-america-2919702.html>

RED ALERT: Flight MH 370 Hijacked for Nuclear Terror Strike on America Sunday, March 16, 2014 13:59

David Chase Taylor

March 16, 2014

[Truther.org](http://truther.org)

SWITZERLAND, Zurich — Recent reports now confirm that the mysterious disappearance of Malaysian Airlines Flight MH 370 was an "act of piracy", that the plane's communication system "was disabled before it disappeared", and that "it is conclusive" that the commercial jetliner was hijacked. Who is responsible for this brazen hijack and what kind of terror-related event this plane will be used for has remained a mystery—until now.

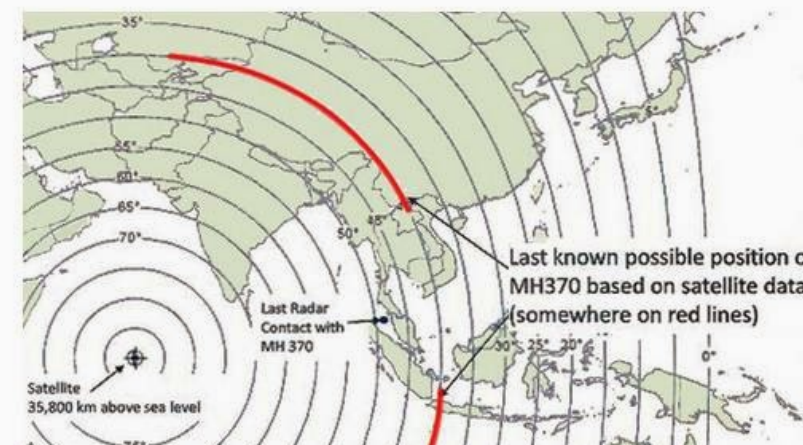
READ: "Live" Iranian Nuclear Attack Planned for New York City During Super Bowl XLVIII

Based on breaking news and events, it appears that Flight MH 370 was hijacked by the country of Iran for use in a 9/11-style nuclear strike on America—most likely New York City. Since international intelligence agencies were unable to execute the Iranian nuclear terror strike on New York City during Super Bowl XLVIII, they hijacked a Boeing 777 specifically in order to fly an Iranian nuclear bomb into one of the four following New York City skyscrapers.

<https://ktwop.wordpress.com/2014/03/15/mh370-hijacking-the-nightmare-scen>



Hijacked MH370 airliner is stolen, landed in remote carefully prepared airstrip, loaded with an improvised terrorist nuclear weapon and refuelled and maybe repainted to disguise its c

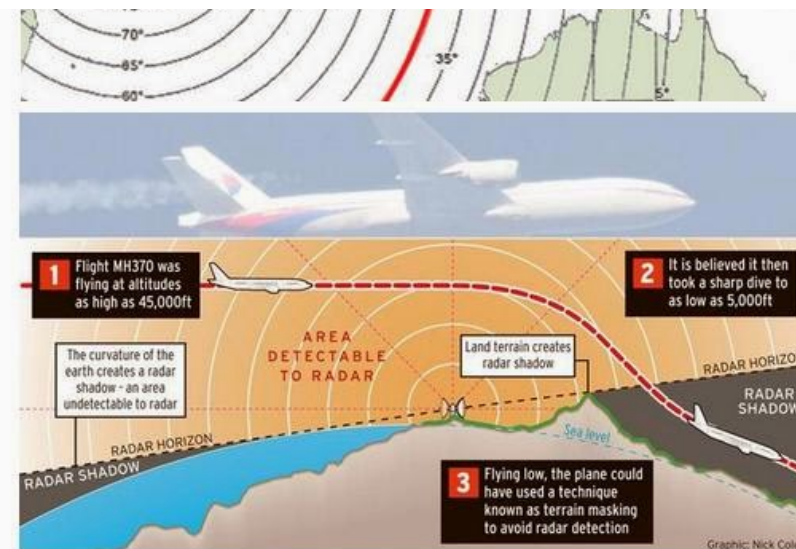


Iranian Hijack

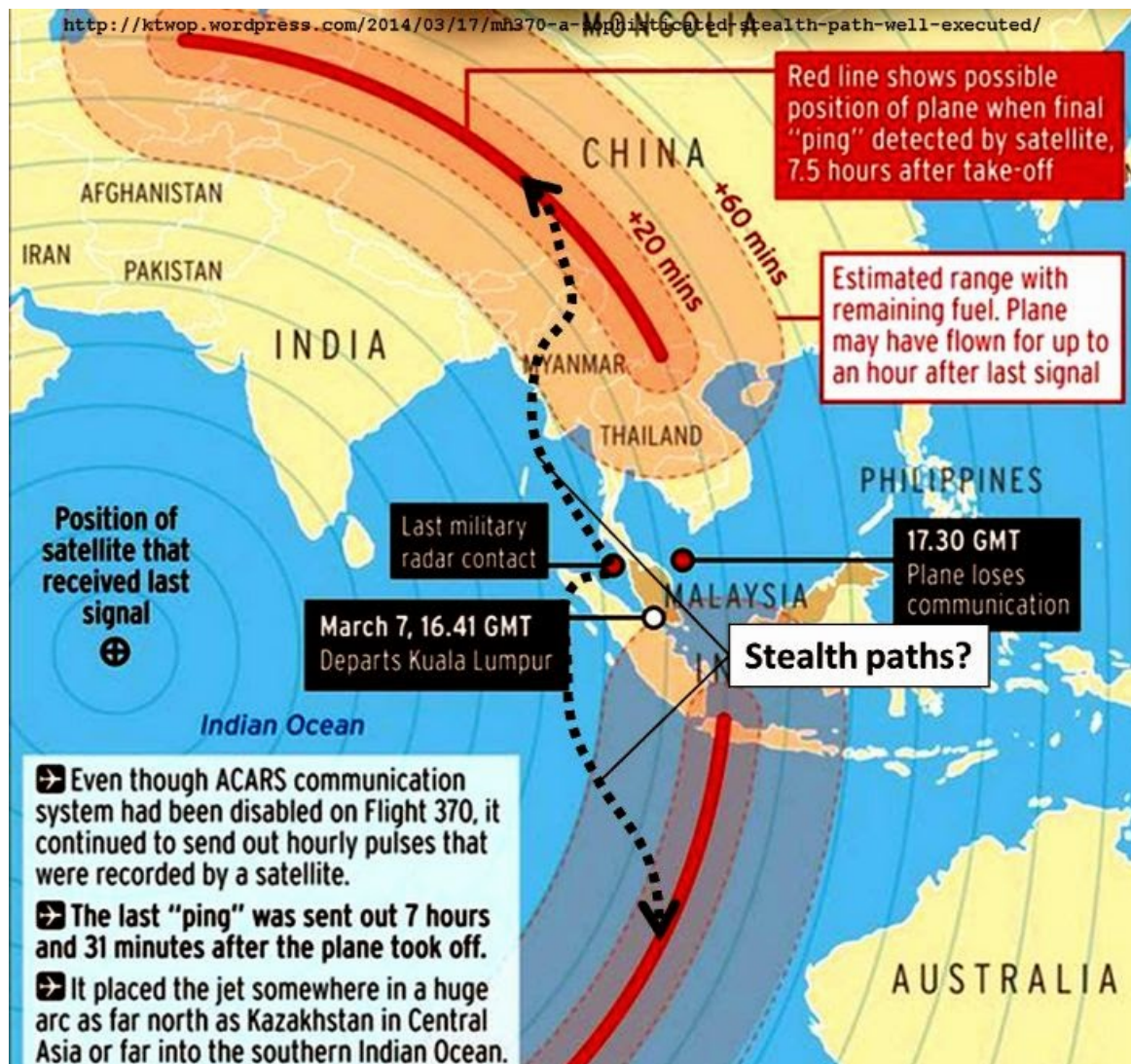
Evidence linking Iran to the hijacked Flight MH 370 was first identified on March 10, 2014, when it was revealed that the 2 stolen passports used to board the missing plane were used with 2 tickets purchased by an Iranian man who: a) bought the tickets at the last-minute, b) paid cash, and c) only purchased one-way tickets—All three of which are red-flags for terrorism. Three days later on March 10, 2014, it was reported that the mystery fake-passport holders on missing flight were in fact Iranian, ultimately confirming Iran's hand in the hijack of the plane. A day later on March 11, 2014, Iranian lawmaker blamed the U.S. for the plane's disappearance, an ominous sign that Iran is attempting to shift the blame of the hijacking onto the U.S. However, since Truthther.org exposed the Iranian terror angle on March 10, 2014, intelligence officials quickly declared on March 12, 2014, that there was no Iranian terror link in respect to Flight MH 307. On any other day, Iranian nationals using stolen passports to board a plane which has since been hijacked would be construed as terrorism, but not in this case. Evidently, the real terrorists orchestrating this particular terror plot want the Iranian based 9/11-stytle nuclear terror strike to be a complete and utter surprise.

Iran's Nuclear Bomb

While Iran was attending meetings in Switzerland over its nuclear program, numerous reports were leaked which suggests that Iran already has a nuclear weapon.



Flying "under the radar" was a standard WWII and Cold War evasion t
If it was hijacked, it would have been easy to avoid radar



These nuclear 911 speculations are wrong: in 1950, Britain secretly examined this nuclear 911 commercial nuclear bomber aircraft in [UK National Archives file AVIA 65/2055](#), concluding that a commercial airliner plane could not drop a nuclear bomb, but would instead have to use a suicide squad to set off the bomb manually within the aircraft at the optimum time for a nuclear explosion. But as the events of 2001 showed, terrorists are capable of such things. The hijacked aircraft could be landed, repainted over a couple of weeks to disguise its origins, then loaded with the nuclear bomb and refuelled, ready for the coming attack.

If you are totally paranoid, you could even tie this into an elaborate plan related to the invasion of the Crimea, because Putin's use of soldiers in *unidentifiable* uniforms with trucks lacking any identification markings does indicate some detailed careful planning. After all, in 1914 - as the previous post on this blog shows in detail - we were taken by surprise by the incredible chain of events resulting from a single gunshot in Serbia, because we were unaware of the **SECRET** December 1912 decision of the Kaiser to start a war in the summer of 1914 on any contrived trivial pretext (the date was decided of course by the date of the completion of the widening of Germany's Kiel Canal at the

Jutland Peninsula, on 23 June 1914. This widened canal finally allowed the Kaiser's warships entry from the Baltic to Britain's North Sea. WWI began 6 weeks later as planned, on the pretext of the Gavrilo Princip's assassination of Archduke Ferdinand, but that was contrived (the German Kaiser pushed for the Austrians to declare war on Serbia in revenge, to give Germany an excuse for going to the aid of Austria). The British naval Admiral Sir John Fisher in 1911 had predicted precisely what would happen, but nobody listened to him. Everyone who warned Grey was simply dismissed as a warmonger. Times never change.

Further information: see [previous post, linked here](#), and [internet archive compendium of declassified report extracts linked here](#).

UPDATE: please see also the posts on [NUCLEAR DETONATIONS IN URBAN AND SUBURBAN AREAS \(updated 3 January 2014 with latest secret UK National Archives files from 1984\)](#), also [The exaggerated urban effects of nuclear weapons: proof tested civil defence](#) and [The Reagan doctrine for dealing with dangerous empires, NSDD-75 \(which contains additional quotations from declassified documents about the "communist" Russian aggression problems during the Cold War, and how Reagan finally terminated them WITHOUT CAUSING WWII, God bless him\)](#).

Please see also my original posting on appeasement in 1914 before WWI and other wars (which needs editing badly, but contains the useful data on the economics of the 1930s arms race):

[How weapons and war effects lies for disarmament and peaceful co-existence just forced Britain to collaborate with evil racist thugs at Munich in 1938](#)

One other relevant post worth mentioning here:

[War Statistics Lies and Weapons Effects Exaggerations for Disarmament and Appeasement?](#)

Glasstone and Dolan, "The Effects of Nuclear Weapons," 1977, paras 12.14, 12.17, 12.22, pp. 545-7:

"The high incidence of flash burns caused by thermal radiation among both fatalities and survivors in Japan was undoubtedly related to the light and scanty clothing being worn, because of the warm summer weather ... If there had been an appreciable cloud cover or haze below the burst point, the thermal radiation would have been attenuated somewhat and the frequency of flash burns would have been much less. Had the weather been cold, fewer people would have been outdoors and they would have been wearing more extensive clothing. Both the number of people and individual skin areas exposed to thermal radiation would then have been greatly reduced, and there would have been fewer casualties from flash burns. ... The death rate in Japan was greatest among individuals who were in the open at the time of the explosions; it was less for persons in residential (wood-frame and plaster) structures and least of all for those in concrete buildings. These facts emphasize the influence of circumstances of exposure on the casualties produced by a nuclear weapon and indicate that shielding of some type can be an important factor in survival. ... Had they been forewarned and knowledgeable about areas of relative hazard and safety, there would probably have been fewer casualties even in structures that were badly damaged."

"Appeasement seldom works in the long term ... appeasement will not prevent every possible attack."

- Robert C. Harney, "Inaccurate Prediction of Nuclear Weapons Effects and Possible Adverse Influences on Nuclear Terrorism Preparedness", Homeland Security Affairs, volume V, No. 3, September 2009, pp. 1-19 (quotation from page 18). (PDF [here](#).)

"... before World War II, for example, many of the staffs engaged in estimating the effects of bombing overestimated by large amounts. This was one of the main reasons that at the Munich Conference, and earlier occasions, the British and the French chose appeasement ... Many people object to air and civil defense, not because they underestimate the problem, but because they overestimate it. They think there is nothing significant that can be done ..."

- Herman Kahn, testimony to the Biological and Environmental Effects of Nuclear War, Hearings before the Special Subcommittee on Radiation, Joint Committee on Atomic

Energy, 86th Congress, 22-26 June 1959, Part 1, at pages 883 and 943. (139 MB PDF.)

"No folly is more costly than the folly of intolerant idealism." - Winston Churchill

"U.S. leaders will be compelled to temper their objectives visà-vis nuclear-armed regional adversaries ..."

- David Ochmanek and Lowell H. Schwartz, The Challenge of Nuclear-Armed Regional Adversaries, RAND Corporation, 2008, Monograph MG-671-AF, pages xi-xii.

"... We learned about an enemy who is sophisticated, patient, disciplined, and lethal. ... We learned that the institutions charged with protecting ... did not adjust their policies, plans and practices to deter or defeat it." - Thomas H. Kean (Chair) and Lee H. Hamilton (Vice Chair), Preface to The 9/11 Commission Report, National Commission on Terrorist Attacks Upon the United States, 2004.

Irving L. Janis, Victims of Groupthink, Houghton Mifflin, Boston, 1972

Janis, civil defense research psychologist and author of Psychological Stress (Wiley, N.Y., 1958), Stress and Frustration (Harcourt Brace, N.Y., 1971), and Air War and Emotional Stress (RAND Corporation/McGraw-Hill, N.Y., 1951), begins Victims of Groupthink with a study of classic errors by "groupthink" advisers to four American presidents (page iv):

"Franklin D. Roosevelt (failure to be prepared for the attack on Pearl Harbor), Harry S. Truman (the invasion of North Korea), John F. Kennedy (the Bay of Pigs invasion), and Lyndon B. Johnson (escalation of the Vietnam War) ... in each instance, the members of the policy-making group made incredibly gross miscalculations about both the practical and moral consequences of their decisions."

Joseph de Rivera's The Psychological Dimension of Foreign Policy showed how a critic of Korean War tactics was excluded from the advisory group, to maintain a complete consensus for President Truman. Schlesinger's A Thousand Days shows how President Kennedy was misled by a group of advisers on the decision to land 1,400 Cuban exiles in the Bay of Pigs to try to overthrow Castro's 200,000 troops, a 1:143 ratio. Janis writes in Victims of Groupthink:

"I use the term "groupthink" ... when the members' strivings for unanimity override their motivation to realistically appraise alternative courses of action."(p. 9)

"... the group's discussions are limited ... without a survey of the full range of alternatives."(p. 10)

"The objective assessment of relevant information and the rethinking necessary for developing more differentiated concepts can emerge only out of the crucible of heated debate [to overcome inert prejudice/status quo], which is anathema to the members of a concurrence-seeking group."(p.61)

"One rationalization, accepted by the Navy right up to December 7 [1941], was that the Japanese would never dare attempt a full-scale assault against Hawaii because they would realize that it would precipitate an all-out war, which the United States would surely win. It was utterly inconceivable ... But ... the United States had imposed a strangling blockade ... Japan was getting ready to take some drastic military counteraction to nullify the blockade."(p.87)

"... in 1914 the French military high command ignored repeated warnings that Germany had adopted the Schlieffen Plan, which called for a rapid assault through Belgium ... their illusions were shattered when the Germans broke through France's weakly fortified Belgian frontier in the first few weeks of the war and approached the gates of Paris. ... the origins of World War II ... Neville Chamberlain's ... inner circle of close associates ... urged him to give in to Hitler's demands ... in exchange for nothing more than promises that he would make no further demands."(pp.185-6)

"Eight main symptoms run through the case studies of historic fiascoes ... an illusion of invulnerability ... collective efforts to ... discount warnings ... an unquestioned belief in the group's inherent morality ... stereotyped views of enemy leaders ... dissent is contrary to what is expected of all loyal members ... self-censorship of ... doubts and counterarguments ... a shared illusion of unanimity ... (partly resulting from self-censorship of deviations, augmented by the false assumption that silence means consent)... the emergence of ... members who protect the group from adverse information that might shatter their shared complacency about the effectiveness and morality of their decisions."(pp.197-8)

"... other members are not exposed to information that might challenge their self-confidence."(p.206)

William J. Broad, U.S. Rethinks Strategy for the Unthinkable, New York Times, December 15, 2010:

"But a problem for the Obama administration is how to spread the word without seeming alarmist about a subject that few politicians care to consider, let alone discuss. So officials are proceeding gingerly in a campaign to educate the public. "We have to get past the mental block that says it's too terrible to think about," W. Craig Fugate, administrator of the Federal Emergency Management Agency, said in an interview. "We have to be ready to deal with it" and help people learn how to "best protect themselves." ... Administration officials argue that the cold war created an unrealistic sense of fatalism about a terrorist nuclear attack. "It's more survivable than most people think," said an official deeply involved in the planning, who spoke on the condition of anonymity. "The key is avoiding nuclear fallout." ... "There's no penetration of the message coming out of the federal government," said Irwin Redlener, a doctor and director of the National Center for Disaster Preparedness at Columbia University. "It's deeply frustrating that we seem unable to bridge the gap between the new insights and using them to inform public policy." ... "Public education is key," Daniel J. Kaniewski, a security expert at George Washington University, said in an interview. "But it's easier for communities to buy equipment — and look for tech solutions — because there's Homeland Security money and no shortage of contractors to supply the silver bullet." ... Some noted conflicting federal advice on whether survivors should seek shelter or try to evacuate. ...

"In 2007, Congress appropriated \$5.5 million for studies on atomic disaster planning, noting that "cities have little guidance available to them." The Department of Homeland Security financed a multiagency modeling effort led by the Lawrence Livermore National Laboratory in California. The scientists looked at Washington, New York, Chicago, Los Angeles and other big cities, using computers to simulate details of the urban landscape and terrorist bombs. ... The big surprise was how taking shelter for as little as several hours made a huge difference in survival rates. "This has been a game changer," Brooke Buddemeier, a Livermore health physicist, told a Los Angeles conference. He showed a slide labeled "How Many Lives Can Sheltering Save?" ... Soon after Mr. Obama arrived at the White House, he embarked a global campaign to fight atomic terrorism and sped up domestic planning for disaster response. ... The agenda hit a speed bump. Las Vegas was to star in the nation's first live exercise meant to simulate a terrorist attack with an atom bomb, the test involving about 10,000 emergency responders. But casinos and businesses protested, as did Senator Harry Reid of Nevada. He told the federal authorities that it would scare away tourists. Late last year, the administration backed down. "Politics overtook preparedness," said Mr. Kaniewski of George Washington University."

The firestorm in Hiroshima merely blocked out sunshine for 25 minutes, hence disproving 'Nuclear Winter' polemical deceptions; furthermore, unlike Hiroshima modern cities that are nuclear targets simply do not contain thousands of charcoal braziers in bamboo and paper screen filled wooden houses with black colored air-raid black out curtains in their windows, and thermal shadowing prevents most modern city buildings from being ignited so there can be no firestorm now, let alone any climate change due to nuclear weapons! (Source: Figure 6 (3H) of the Report of the Joint Commission for the Investigation of the Effects of the Atomic Bomb in Japan, Volume 1, Office of the Air Surgeon, report NP-3036, U.S. Atomic Energy Commission.)



Above: eighteen people visiting Hiroshima survived and took trains home to Nagasaki and then survived the second explosion. Nine survivors of Hiroshima who travelled to Nagasaki avoided blasted glass and flying debris at the second nuclear explosion because they knew that the blast effect (breaking windows and blasting glass fragments and other debris horizontally) was slightly delayed after the flash (like thunder after lightning), so they had time to literally duck and cover from part of the heat flash and horizontally flying glass and debris. Robert Trumbull - the New York Times Pacific and Asia war correspondent, 1941-79 who had been in Iwo Jima - documented the facts in his 1957 book *Nine Who Survived Hiroshima and Nagasaki: Personal Experiences of Nine Men who Lived Through Both Atomic Bombings*. Here are their experiences and ages on 9 August 1945:

Kenshi Hirata, 26, accountant at Mitsubishi Shipbuilding Company, Hiroshima (Trumbull pp. 25, 61, and 119): "through an open window what looked like a golden lightning flash ... had blown up out of the earth. The weird light was everywhere. I immediately thought of an air-raid, and hurled myself prostrate in the passage." Hirata's quick action probably saved him serious injury, if not his life. ... Because it was the middle of summer, which is exceptionally hot in southern Japan, most of the people of Hiroshima were very thinly clad that morning, so they had less than ordinary protection against burns, Hirata observed. ... [Back in Nagasaki] 'I shouted to my aged father ... 'Lie face downward!' In the immediate moment I was expecting that terrific explosion blast and roar.' ... Kenshi and his father were unharmed. 'But in two or three minutes ... I saw people running out of their houses, holding their hands over injuries on their heads, faces, and bodies. Most of these were wounds caused by flying pieces of glass.'

Tsutomu Yamaguchi, 29, Mitsubishi ship designer who died in 2010, aged 93 (Trumbull pp. 28 and 109): "Suddenly there was a flash like the lighting of a huge magnesium flare," Yamaguchi recalls. The young ship designer was so well drilled in air-raid precaution techniques that he reacted automatically. He flung his hands to his head, covering his eyes with his fingers and stopping his ears with his two thumbs. Simultaneously he dropped to the ground, face down. ... 'As I prostrated myself, there came a terrific explosion' ... [The left side of his face and arm facing the fireball were burned, and he returned to Nagasaki, experiencing the second nuclear explosion on the sixth-floor of the headquarters office of Mitsubishi.] Spelling out the danger of flying glass, he urged them to keep windows open during an air-raid alert, and at the instant of the flash to seize at once upon any shelter available ... the second A-bomb confirmed young Yamaguchi's words, exploding in a huge ball of fire about a mile away. Yamaguchi's lecture ... was not lost upon his colleagues. With the young designer's words still fresh in their minds, they leaped for the cover of desks and tables. 'As a result,' said Yamaguchi, 'my section staff suffered the least in that building. In other sections there was a heavy toll of serious injuries from flying glass'."

Shigeyoshi Morimoto, 46, maker of kites for air defense of Japanese ships, used his Hiroshima experience to take cover in Nagasaki after seeing the flash, before the windows were blasted in. Tsutaro Doi, 47, was on his Hiroshima hotel bed, a thin floor mattress called a "futon" when he saw the explosion flash (Trumbull pages 42 and 106-7): "I quickly rolled over and covered my head with the futon ... The floor of the room and my futon were covered with tiny bits of shattered glass. I noticed that I had a slight cut on one arm, and another on the leg, where I wasn't covered. ... [He returned home to Nagasaki] 'Doi was telling his wife in detail about the bomb. 'If you ever see that flash,' he said, 'immediately prostrate yourself on the floor, or the ground if you are outside. ...' As he was saying these words, the windows lighted as if giant searchlights had been turned directly into the house. ... Mrs Doi startled, jumped to her feet impulsively and turned to run out of the house. Doi grabbed her and pulled her and the baby down as the blast wave shattered all the glass in the little cottage and ripped off the wood and paper sliding doors. As the flimsy house steadied Doi opened his eyes, and saw that the interior of the room was a wreck. But neither he nor his wife nor the baby was hurt."

Shinji Kinoshita, 50, was hit by falling roof slabs in a Hiroshima warehouse but returned home to Nagasaki and was just outside the door of his family home when the bomb fell (Trumbull p105): "he was momentarily blinded by a flash that seemed to cover the sky. Like the other survivors of the Hiroshima attack, Kinoshita realized at once what the strange, blinding light meant, and reacted without a second's hesitation. He threw himself face first on the ground, at the same time shouting into the house, 'Cover yourself with futons!'"

Masao Komatsu, 40, was hit by falling beam in a Hiroshima warehouse and was on board a train in Nagasaki when the bomb fell (Trumbull, p101): "the interior of the coach was bathed in a stark, white light. Komatsu immediately dived for the floor. 'Get down!' he screamed at the other passengers. Some recovered sufficiently from the daze of the blinding light to react promptly to his warning. Seconds later came the deafening crack of the blast, and a shock wave that splintered all the windows on both sides of the train. The passengers who had not dived under the seats were slashed mercilessly from waist to head by glass flying at bullet speed."

Takejiro Nishioka, 55, publisher of Nagasaki's leading newspaper in 1945 who became Governor of the Nagasaki Prefecture in 1957. In Hiroshima on business on 6 August 1945, he survived the first nuclear explosion and noted the delay of the blast wave after the visible flash. When he returned to Nagasaki he was not allowed to publish the facts, and only survived by diving into an air raid shelter when he saw the flash after a single B-29 appeared over the city. He explained (Trumbull, p92):

"I had observed in Hiroshima that when the flash came, there would be a few seconds before it was followed by the blast wave ... I have often bitterly regretted the law that gagged me as a newspaperman, and forced me to confine my communications to the governor's ear alone."

Japan only permitted civil defense advice against nuclear attack to be published after the second nuclear attack on Nagasaki, which was too late. Even at ground zero, the blast wave was delayed after the first flash because of the height of burst, so quick reactions could limit exposure to flying glass. Proof of the efficiency of duck and cover advice against the blast wind and flying debris was given by Nagasaki's police chief Mizuguchi, who had been told Nishioka's advice by the Nagasaki governor and had passed it to his first-grade middle school student son, who was with three friends in Daikoku-Machi street, Nagasaki, when the flash occurred (Trumbull pp. 114-5):

"The police chief's son remembered his father's warning at once. Hauling his friend with him by the hand, he dashed for a shelter on the pavement ... The two boys in the shelter were saved; the other two, who stayed on the street, seemed to vanish ... Mizuguchi's wife, at the same moment, happened to be standing just outside their house, under the eaves, with a baby in her arms. The instant she saw the flash, she recalled her husband's words of the night before and rushed back into the house. She opened a closet and, with the baby still in her arms, crowded inside and pulled shut the sliding door. ... The room, and the area outside the house, was covered with innumerable sharp, pointed slivers of shattered glass. Clearly, she had escaped serious injury by shutting herself in the closet. ...

"Nishioka was bitterly upbraided by Hiromasa Nakamura, chief of the foreign affairs sections of the Nagasaki Prefectural Office, for not briefing other government officials on the happenings at Hiroshima and the efficacy of bomb shelters. ... 'I could only tell him that I was indeed anxious to tell everyone in Nagasaki what I had learned, but that if I had done so, I would have been liable for violation of the law against spreading 'wild rumors', and could have been arrested and convicted."

Akira Iwanaga (25, engineer at Mitsubishi ship yard, a friend and colleague of Yamaguchi). After surviving at Hiroshima, he arrived in Nagasaki just as the bomb exploded, aboard the same train as another double-survivor, Masao Komatsu (Trumbull p101). Sakajiro Mishima, 36, dockside worker at Mitsubishi ship yard, also survived both nuclear explosions. Yamaguchi's friend Kuniyoshi Sato, along with Masako Suga and her baby boy and Hiroshi Shibuta were all also double-survivors of both Hiroshima and Nagasaki. Another double-survivor is Mrs Kazuko Sadamaru (aged 20 in 1945), who was interviewed aged 80 in 2005 in The Observer (London, Sunday 24 July 2005). She was a nurse in a Nagasaki's Ohmura Naval Hospital but on 5 August 1945 had to accompany a soldier to Hiroshima by train, where she survived and returned to Nagasaki before the second bomb:

"I never wanted to speak out about my experience. I haven't published anything or talked to anyone because I didn't want anyone to know. I only became a nurse because I wanted to devote myself to patients and the country. I never dreamt Japan would lose the war. I worked and worked believing Japan would win. I cannot forget the events on 6 and 9 August 1945. I saw the flashes and the mushroom clouds of both A-bombs dropped on Hiroshima and Nagasaki. So many were exposed to the A-bomb but I am one of the few people who have experienced the two bombs, and still I am in good health. It was fate that I was there, but I had good luck in that I survived both bombs." Despite being close to both bombs, she suffered only a temporary abnormal white blood cell count and loss of hair."

"No statistically significant increase in major birth defects or other untoward pregnancy outcomes was seen among children of survivors. ... The incidence of major birth defects (594 cases or 0.91%) among the 65,431 registered pregnancy terminations for which parents were not biologically related accords well with a large series of contemporary Japanese births at the Tokyo Red Cross Maternity Hospital, where radiation exposure was not involved and overall malformation frequency was 0.92%. No untoward outcome showed any relation to parental radiation dose or exposure. ... Since many birth defects, especially congenital heart disease, are not detected in the neonatal period, repeat examinations were conducted at age eight to ten months. Among the 18,876 children re-examined at that age, 378 had one or more major birth defect (2.00%), compared with 0.97% within two weeks of birth. Again, there was no evidence of relationships to radiation dose."

– RERF, Birth defects among the children of atomic-bomb survivors (Hiroshima and Nagasaki nuclear weapons explosion irradiated survivors),

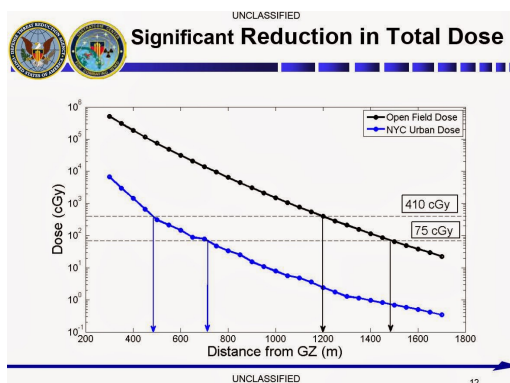
http://www.rerf.jp/radefx/genetics_e/birthdef.html

The Hiroshima-Nagasaki nuclear attacks RERF life-span study (LSS) from 1950 to 2000 for leukemia deaths and from 1958 to 1998 for solid cancer occurrence showed that for 49,204 survivors in the leukemia study group, there were an excess of 94 leukemia deaths attributed to radiation, risk of 94/49,204 or 0.191% (above the natural number of cancers in the unexposed control group), and an excess of 848 solid (tumour) cancer deaths in 44,635 survivors, a risk of 848/44,635 or 1.90%. In each case, the excess radiation cancer risk was smaller than the natural risk of 0.22% for leukemia and 15.69% for solid (tumour) cancer deaths. It is significant that the natural cancer death risk was higher than the radiation cancer death risk for both leukemia and solid tumours unless the dose exceeded about 1 Gray (100 R or 100 cGy). E.g., 48% of leukemia deaths from doses of 10-100 R were due to radiation and 52% were natural (a bigger risk than radiation). Likewise, only 16% of solid tumour cancer deaths for doses of 10-100 R were due to radiation (84% were natural): http://www.rerf.or.jp/general/qa_e/qa2.html



"If all residents in the hazardous fallout region adopt a shelter-in-place strategy, the total number of acute radiation casualties is estimated to be ~ 3,600, as compared to ~ 100,000 casualties if all are outdoors and unsheltered. Some further reductions in casualties can be realized if those in the poorest shelters transit to better shelters soon after the detonation."

— Larry D. Brandt and Ann S. Yoshimura, Analysis of Sheltering and Evacuation Strategies for a Chicago Nuclear Detonation Scenario, Sandia National Laboratories, Report SAND2011-6720, August 2011, page 5.



"We have shown that common estimates of weapon effects that calculate a 'radius' for thermal radiation are clearly misleading for surface bursts in urban environments. In many cases only a few unshadowed vertical surfaces, a small fraction of the area within a thermal damage radius, receive the expected heat flux."

— R. E. Marrs, W. C. Moss, and B. Whitlock, Thermal Radiation from Nuclear Detonations in Urban Environments, Lawrence Livermore National Laboratory, UCRL-TR-231593, June 2007, page 11.

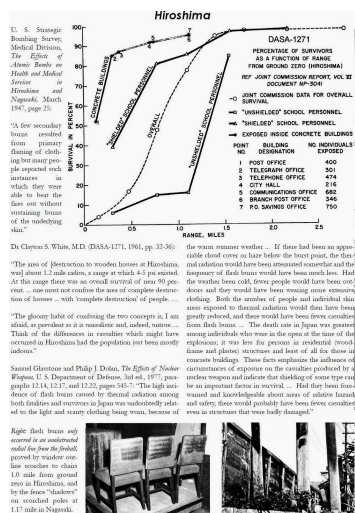
"Reliance on The Effects of Nuclear Weapons for valid conclusions has its shortcomings. For example, in the 1954 test series in the Pacific, I was on the deck of the YAG-39 which was on station at about twenty miles from the shot point of a detonation with a yield near ten megatons. The thermal flash did not produce the predicted second degree burn on the back of my neck or indeed any discomfort at all."

- Dr Carl F. Miller, Dialogue, Scientist and Citizen, vol. 8, combined issues 4-5 (February-March 1966), page 17.



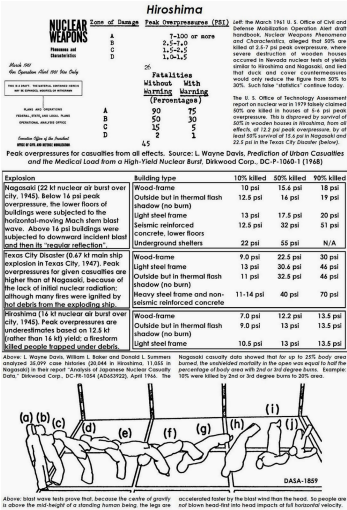
"Models developed at Applied Research Associates (ARA) and Los Alamos National Laboratory have shown similar reductions in injuries from the initial radiation [J.T. Goorley, Nuclear Weapon Effects for Urban Consequences, Los Alamos National Laboratory, LA-UR 09-00703 and LA-UR-10-01029] ... Like the thermal analysis, these studies indicate that the ambient radiation levels from a low-yield, ground-level nuclear detonation in an urban environment could be significantly reduced."

— Brooke Buddemeier, "Reducing the Consequences of a Nuclear Detonation: Recent Research", The bridge (ISSN 0737-6278, National Academy of Engineering), Vol. 40, No. 2, Summer 2010, pp. 28–38 (quotation from page 30).



After studying hundreds of Hiroshima and Nagasaki survivors, Dr. Irving L. Janis reported that the bright flash arriving at light speed ahead of the blast wave allowed them to take evasive action in Hiroshima and Nagasaki, a fact ignored in computer models of blast casualties (Psychological Effects of Atomic Bombing, Industrial College of the Armed Forces, Publication No. L54-134, 14 May 1954, page 4):

“A substantial proportion of the survivors reacted automatically to the brilliant flash of the A-bomb as a danger signal, even though they knew nothing about the existence of atomic weapons at that time. Some who were not located near ground zero took prompt action – such as falling to a prone position – which minimized exposure to the blast and to the secondary heat waves. In many other cases, however, the opportunity to minimize the danger was missed because the individual remained fixed or because the action which was taken proved to be inappropriate.”

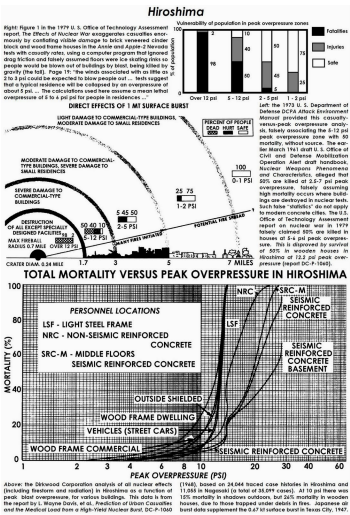


Dr G. Andrew Mickley explains how workers who returned to Nagasaki after surviving at Hiroshima were able to use their experience to survive the second nuclear explosion, and to help others to prepare, in his paper “Psychological Factors in Nuclear Warfare”, Chapter 8 in Textbook of Military Medicine; Part I, Warfare, Weaponry, and the Casualty; Volume 2: Medical Consequences of Nuclear Warfare, U.S. Army, 1989, pp. 184-5:

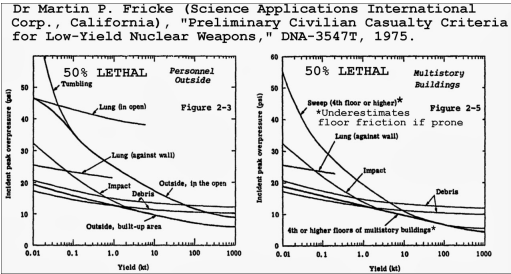
“The benefits of training are confirmed by the remarkable experiences of nine persons who survived the Hiroshima bombing and then fled to Nagasaki in time for the second atomic bomb. They remembered very well what they had done that allowed them to live, and they quickly instructed others in Nagasaki: “Yamaguchi’s lecture on A-bomb precautions, he pointed out later, was not lost upon his colleagues. With the young designer’s words still fresh in their minds [on 9 August 1945, in Nagasaki] they leaped for the cover of desks and tables. “As a result,” said Yamaguchi, “my section staff suffered the least in that building. In other sections there was a heavy toll of serious injuries from flying glass.” (Quoted from Robert Trumbull, Nine who survived Hiroshima and Nagasaki, New York: E. P. Dutton and Co., 1957.)”

Robert Trumbull’s Nine who survived Hiroshima and Nagasaki (E. P. Dutton and Co., N.Y., 1957) interviewed nine of the sixteen who survived both the Hiroshima and Nagasaki nuclear explosions (travelling to homes in Nagasaki immediately by train after surviving at Hiroshima). The double-survivor Takejira Nishioka (a newspaper publisher) observed in Hiroshima that the blast wave was delayed after the flash, and, being friends with the Governor of Nagasaki Prefecture, tried (but failed) to get permission to send out a warning prior to the Nagasaki nuclear attack that people can avoid being knocked down or hit by horizontally-blasted window glass and debris if they duck and cover on seeing the very bright visible flash. Duck and cover also provides shielding from thermal and nuclear radiation, because it increases the fraction of the free-field air radiation dose which is attenuated through obstructions before reaching a person, as was known in 1949 (HO 225/14, The advantage of lying prone in reducing the dose of gamma

rays from an airburst atomic bomb).

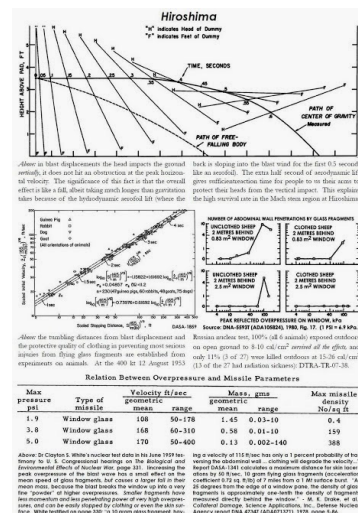


The advice was experimentally verified in the 37 kt Plumbbob-Priscilla nuclear test of 1957, where a standing dummy and a lying dummy were actually filmed being hit by a 5.3 psi peak overpressure blast wave. The lying dummy was completely unmoved, but the standing dummy was accelerated to 21 ft/s in just 0.5 seconds, and blasted a distance of 22 feet. However, in humans the feet rotate forward (because the centre of the body mass is above mid-height) so head-first impacts at the maximum velocity are prevented by the laws of physics, and the only risk to the head is from the vertical fall, and even this is delayed for the blast duration, giving at least 0.5 second of extra time to use the arms to protect the head. Even in the 43.7 kt Plumbbob-Smoky nuclear test where the dummies were in a “blast precursor” desert sandstorm with a very much high dynamic pressure, the lying dummy was only blown half the distance of the standing one. In 1964, the 0.5 kt Snowball explosion confirmed the data and showed that goats are a proxy for humans in translation experiments (DASA-1859).

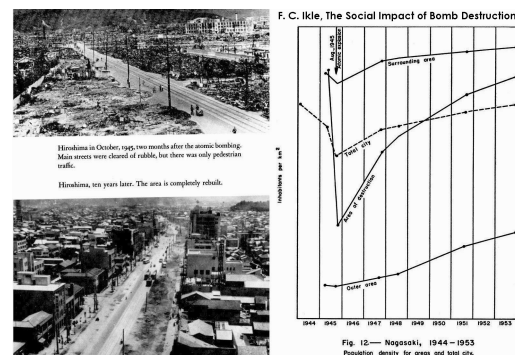


Experiments prove that 77% (23/30) of goats survived a blast which gave them a velocity of 51-78 ft/sec and a decelerative tumbling displacement of 59-151 ft (I. G. Bowen, D. R. Richmond and C. S. White, Translational Effects of Blast Waves, “Minutes of the Tripartite Technical Cooperation Program, Panel N-1, Sub-group N, 14-16 March 1963”, Lovelace Foundation for Medical Education and Research, 11 March 1963, page 57). In a built-up area, most people will never even reach the peak velocity observed in desert tests, because they will be stopped by obstructions after typically 10 ft, before they have even been accelerated to the optimum velocity. Therefore, any injury will be less

serious, due to the smaller velocity at the time of impact.

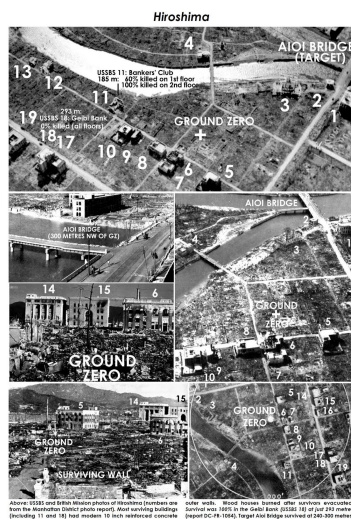


On 27 September 1956 dummy men were exposed to the 15 kt Buffalo-1 nuclear test at Maralinga (similar yield to Hiroshima). Dummies standing facing the burst were blown ~0.35psi/2 feet (p = peak overpressure, psi). But the dummies lying facing radially towards or away from ground zero were only blown 10% of this distance, because of (1) the smaller area exposed to the blast wind and dust, and (2) the greater area in contact with the ground, providing frictional resistance against drag. References: W. J. H. Butterfield, E. G. Hardy and E. R. Drake Seager, The effects of blast on dummy men exposed in the open, Operation Buffalo, Atomic Weapons Research Establishment, report AWRE-T2/59, 1959 National Archives documents DEFE 16/165, A. R. F. Martin, The effects of blast on dummies and scout cars, Operation Antler, report AWRE-T6/59, ES 5/270, 1959, and the research on the reduced blast displacement of lying dummies exposed to large conventional explosions: DASA 2710.



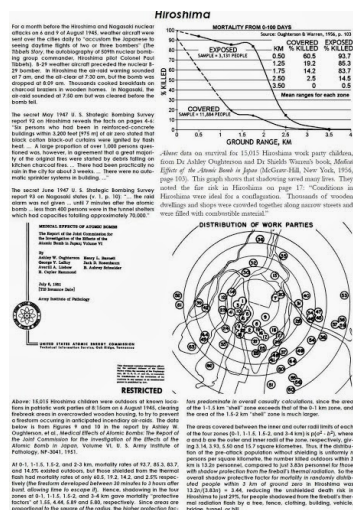
George Monbiot, *The Guardian*, Tuesday 5 April 2011: "The unpalatable truth is that the anti-nuclear lobby has misled us all: I've discovered that when the facts don't suit them, the movement resorts to the follies of cover-up they usually denounce. ... Dr Caldicott is the world's foremost anti-nuclear campaigner. ... Caldicott's response ... a report by the US National Academy of Sciences, which she urged me to read. I have now done so – all 423 pages. It ... strongly contradicts her claims ... For the last 25

years anti-nuclear campaigners have been racking up the figures for deaths and diseases caused by the Chernobyl disaster, and parading deformed babies like a medieval circus. They now claim 985,000 people have been killed ... there have been 6,848 cases of [treatable] thyroid cancer among young children – arising ‘almost entirely’ from the Soviet Union’s failure to prevent people from drinking milk contaminated with iodine 131 [which has a half life of only 8 days, so cattle can be taken out of fields and given winter feed while it decays, or else the milk can be dry powdered or used to make cheese, or even frozen; if people must drink contaminated milk, they can block iodine-131 uptake by daily 130 mg potassium iodate tablets, which nuclear industries stock for emergency distribution].”

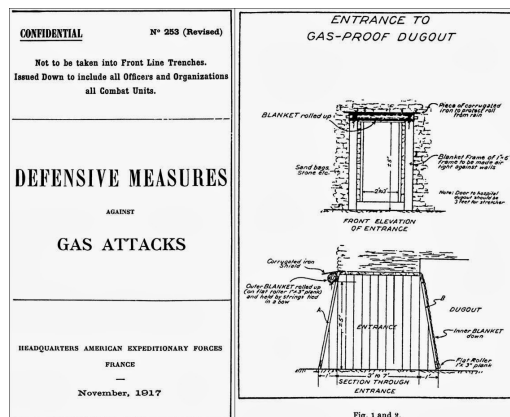


Above: USBS and British Museum photos of Hiroshima (downloaded from the newspaper United Press reports about surviving buildings (including 11 and 19) that modern 10 inch reinforced concrete outer walls. Below: Hiroshima bombed after bombing, unscathed. Survived until 1925 in the 4000 Bays (USBS: 18) at just 250 metres (paper DC 18-1046). Target Aioi Bridge survived at 240-300 metres.

Weapons effects exaggerations against civil defense are escalated by successive journalists and editors, who increase circulation against ever increasing noise levels from rival journals by publishing lying scare mongering which is “justified” by the allegedly moralistic pseudo-ethical assumption that “the ends justify the means”. Environmentalists who worship subjective, fashionable groupthink like a religion scream and conflate natural cancers with the effects of radiation. Like a Gordian Knot, any attempt to pull apart this scam “orthodoxy” just hardens the dogma, because its proponents do not believe in it on the basis of hard objective science, but just as an emotional, ethical, moralistic piece of patronising high-horse politics. As Glasstone pointed out in the 1950 Effects of Atomic Weapons, it is like the gas effects fear-mongering exaggerations propaganda before WWII (which claimed that gas would destroy civilization and lied that there was no defense).



“The unsuspecting layman naturally swallows it whole ... but they do want to get their manuscript accepted for the feature page of the Daily Drivel or the Weekly Wail. In order to do that, they must pile on the horrors thick.” – James Kendall, *Breathe Freely!*, quoted by Fair (ADA488135, [linked here](#)).



The 1935 effectively pro-Nazi “pacifist” conspiracy between Labour and Conservatives to pander to popular British pro-disarmament pacifist media sentiments

"There is no security in armaments and we shall be no party to piling them up."

– Labour Party Leader of the Opposition Clement Attlee, 1935 (two years after Hitler took power and began rearming Germany; quotation from Gilbert and Gott, *The Appeasers*, 1967). Troubled by the failure of unilateral disarmament to save millions of lives in WWII, Attlee 12 years later as Prime Minister ordered the stockpiling of the first British nuclear weapons to deter WWII from starting.



"Supposing I had gone to the country and said that Germany was rearming and that we must rearm ... I cannot think of anything that would have made the loss of the election from my point of view more certain."

– Conservative Prime Minister Stanley "the bomber will always get through" Baldwin, who won the 1935 general election with a large majority by lying to get votes for popular pacifism, denying Winston Churchill's unpopular "warmongering" claims that Hitler was rearming Germany and must be deterred effectively (speech in House of Commons, 12 November 1936). (Some pro-Baldwin historians – not Winston Churchill – claim Baldwin was referring to an earlier non-existing election than 1935, but this makes no difference to the lying.)

An early example of "ends justify the means" exaggeration of weapons effects is Will Irwin's 1921 book, *The Next War*, exaggerating gas war into the end of civilization to "justify" 1920s disarmament. This was followed by a chorus of others, before appeasers like Chamberlain stepped in to "guarantee peace in our time" by shaking Hitler's hand (while Britain only rearmed at a fraction of the rate of Germany, so as "not to risk another war"). Instead, this increased the danger of war:

"These weapons often appear mysterious and sinister to the general public. I think that much of the responsibility for this feeling falls on our government which, by placing great restriction on the public discussion of these weapons by military officers, has fostered this miasma of ignorance. ... the government perpetuates the mysteriousness of these weapons by its restrictions. Until I retired as Commanding General, U.S. Army Chemical Corps Research and Development Command, I was under such restrictions. ... An uninformed public will not support urgently needed research and development on these weapons, nor will it be prepared psychologically for their use against us. ... Only knowledge of these weapons will make them less terrifying.

"In 1959, after hearings on research in CBR (Chemical, Biological, and Radiological Warfare), the Committee on Science and Astronautics of the U.S. House of Representatives stated that. 'There is an urgent need for greater public understanding of the dangers and uses of CBR if proper support is to be given to our defenses and countermeasures'. ... The attitude of our government not only prevents the public from learning of these weapons: it is also greatly responsible for the failure of our military personnel to learn about them. ... The military, in our country, are not a caste apart, but simply an extension of the civilian populace."

- Brigadier General J.H. Rothschild, *Tomorrow's Weapons*, McGraw-Hill, N.Y., 1964, pp. xi-xiii.



London home with taped-glass windows to reduce blast effects on flying glass, 28th September 1940 Blitz

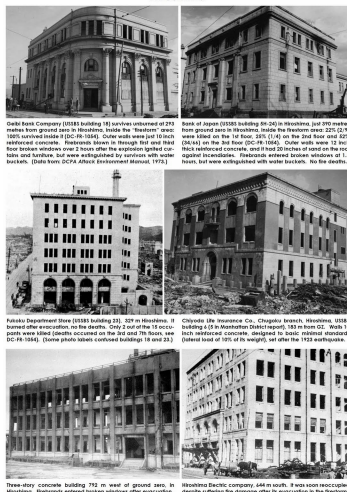
November 1940, and children sleep in hammocks in the London Underground



Rothschild explains on page 1 that his June 1959 Harper's Magazine article arguing for greater defense against chemical and biological weapons was opposed by letters of protest "against war itself". He then explains on page 2 that chemical and biological weapons are not uniquely invisible. Bullets are also invisible while flying through the air. On page 3 he adds that in WWI only 2% of gassed American Expeditionary Force casualties died, compared to 25.8% of non-gas casualties, adding: "Exposed to one of the nerve gases, available since World War II, the casualty will either die or recover completely. Though a person under the effects of the nerve gases looks as though he is suffering greatly, men who have been accidentally exposed to them, and have recovered, say that they do not remember suffering at all. This is at great variance with the experience of casualties resulting from bullets, shell fragments, flame throwers, and land mines."

Matthew Meselson, reviewing Rothschild's book using sophistry on page 35 of the October 1964 Bulletin of the Atomic Scientists, fell into a false argument, claiming that the use of chemical weapons in WWII would have caused them to be used in the Korean War with "additional casualties." In fact, the use of chemical weapons in WWI did not cause them to be used in WWII, and the use of nuclear weapons in WWII did not cause them to be used during the Cold War. Furthermore, because America kept to "conventional" weapons during the Korean War, it had to drop 635,000 tons of explosives and napalm bombs on Korea, more than in the entire Pacific theatre during WWII, ruining Korea's cities, with immense casualties and suffering. Escalating to demoralise the enemy, as in August 1945, may stop wars and so stop further physical use of the feared weapon.

Hiroshima



Biologist J. B. S. Haldane summarised the psychology of denial and duplicity in claiming gas warfare “unthinkable” in his 1925 book *Callinicus*: “First are a number of out-and-out Pacifists, who object to all war, and apparently hope to make it more difficult ... With them are associated a group of sentimentalists who appear to me definitely to be the Scribes and Pharisees of our age. ... They save their consciences for such behaviour by attacking, in the name of their God or their ideals, every novelty ... In particular they are distinguished by a ferocious opposition to, and contempt for, any attempt at the solution of human problems by honest and simple intellectual effort.”



Attacks on civil defense are akin to attacking home fire insurance, hospitals, ambulances, seatbelts, lifeboats, and other damage reducing precautions on the false allegation that they deflect attention from utopian accident prevention, or that they are “inefficient” and “the survivors would envy the dead”. The “false sense of security” and “recklessness” historically is shown to occur not with civil defense, but with a lack of civil defense, leading to either appeasement or a maximum amount of damage, escalating the problems.



"Is it really necessary for peace on this planet that an increasing number of governments have the power to destroy the lives of millions of Americans on short notice? Do the opponents of civil defense not see that such power also provides a temptation to use it, at least for blackmail? Mr Margolis points repeatedly and emphatically to the public apathy with regard to civil defense. ... But, in any case, if history is any guide, public apathy toward a measure would in no way prove the undesirability thereof."

- Dr Eugene P. Wigner, "Civil Defense: Wigner on Project Harbor", Bulletin of the Atomic Scientists, February 1966, pp. 21-22 (quotation on page 22).

MINISTRY OF HOME SECURITY

1940

Air Raids

WHAT YOU MUST KNOW

WHAT YOU MUST DO

30

FOREWORD

SIR JOHN ANDERSON, G.C.B., G.C.S.I., G.C.I.E., M.P.
Minister of Home Security

This book is written to help you and your family and your friends, to know how they may best be able to protect themselves in the event of an air raid. It is a book for the people of this country, and it is written in a simple and straightforward manner. It is not a book for the people of other countries, and it is not a book for the people of this country who are not of this country.

A great deal of information has been collected as a result of experience in the event of an air raid, and this information is now being made available to you. It is a book for the people of this country, and it is written in a simple and straightforward manner. It is not a book for the people of other countries, and it is not a book for the people of this country who are not of this country.

It is the duty of every man and woman in this country to be able to protect themselves in the event of an air raid. It is the duty of every man and woman in this country to be able to protect themselves in the event of an air raid. It is the duty of every man and woman in this country to be able to protect themselves in the event of an air raid.

What you must know

At a moment of trouble, and the time is coming, it is important that you should know what to do. It is important that you should know what to do. It is important that you should know what to do.

What you must do

It is important that you should know what to do. It is important that you should know what to do. It is important that you should know what to do.

Architecting the House when Choosing a Site

To protect the body of the house, it should be placed in a position where it will be safe from the effects of an air raid. It should be placed in a position where it will be safe from the effects of an air raid. It should be placed in a position where it will be safe from the effects of an air raid.

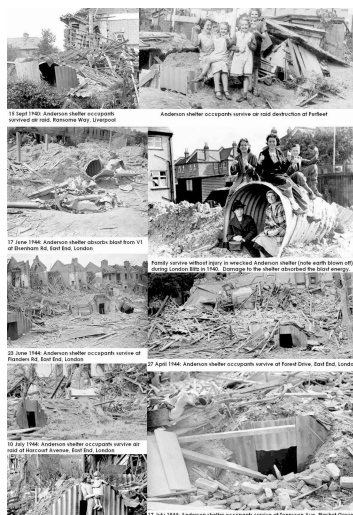
Preparing to Escape from an Enemy's Whirlwind

It is important that you should know what to do. It is important that you should know what to do. It is important that you should know what to do.

Preparing to Escape from an Enemy's Whirlwind

It is important that you should know what to do. It is important that you should know what to do. It is important that you should know what to do.

"At no time did Hitler threaten to initiate war against France and England. He simply threatened to 'retaliate' ... The technique he used is such an obvious prototype for a future aggressor armed with H-bombs that it is of extreme value to all who are concerned with the problem of maintaining a peaceful and secure world ..." — Herman Kahn, On Thermonuclear War, 1960, p. 403.

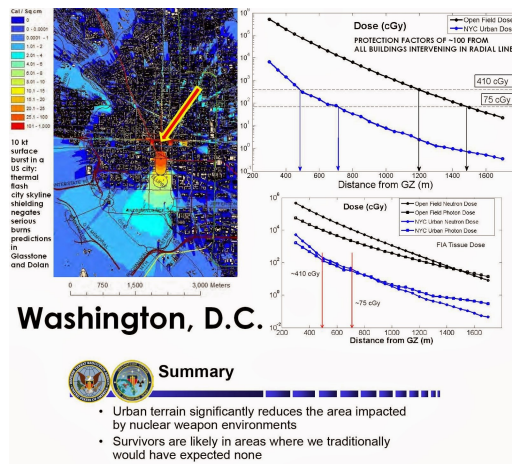


President Barack Obama, Prague, Czech Republic, 5 April 2009:

"In a strange turn of history, the threat of global nuclear war has gone down, but the risk of a nuclear attack has gone up. More nations have acquired these weapons. ... Terrorists are determined to buy, build or steal one. Our efforts to contain these dangers are centered on a global non-proliferation regime, but as more people and nations break the rules, we could reach the point where the center cannot hold."

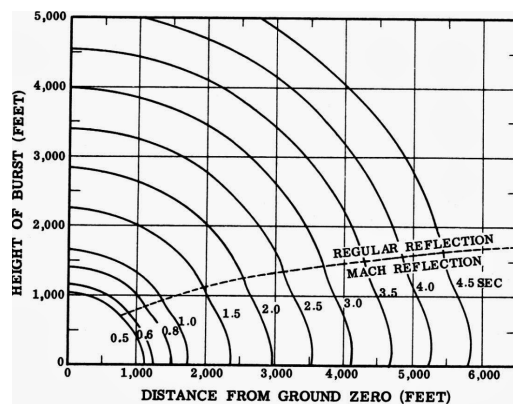
Dr Clayton S. White, M.D., "Biological Effects of Blast," report DASA-1271, 1961, pp. 32-36:

"The area of complete destruction at Hiroshima [the area of the firestorm which developed to a maximum intensity 2-3 hours after the explosion was] about 1.2 mile radius (4 square miles), a range at which 4-5 psi existed. At this range there was an overall survival of near 90 percent. ... one must not confuse the area of complete destruction of houses ... with 'complete destruction' of people. ... The gloomy habit of confusing the two concepts is, I am afraid, as prevalent as it is unrealistic and, indeed, untrue. ... Think of the differences in casualties which might have occurred in Hiroshima had the population just been mostly indoors."



Overcrowding of wood-frame buildings in 1945 Hiroshima was such that 42 percent of the ground areas in the main firestorm areas was covered with wooden buildings containing charcoal braziers, paper screens, and bamboo furnishings. This compared to 45 percent ground coverage by buildings in the central wooden medieval part of Hamburg which suffered a firestorm in July 1943. (Source: secret USSBS report The Effects of the Atomic Bomb on Hiroshima, Japan, May 1947, volume 2. This originally secret volume is not the misleading 1946 pamphlet, which omits all vital data.) U.S. Strategic Bombing Survey, never-published full May 1947 report 92 on Hiroshima, volume 2, typeset edition pages 126-8 (quoted on pages 176 and 98 of Hiroshima: Ground Zero 1945):

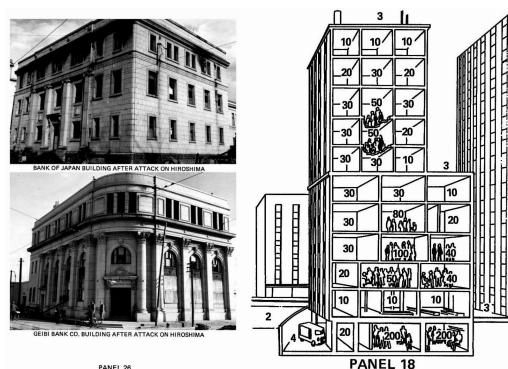
"Structural damage by blast to multistory, steel- and reinforced concrete-frame structures did not extend beyond 2,000 feet from GZ. The buildings within this radius sustained an average of 12 percent structural damage. The average for all the buildings of this type in Hiroshima was 8 percent."



These are modern city buildings. The burned out areas in old photos are congested (a roof to ground area averaging 42% in firestorm areas) wood frame houses. On page 98, Hiroshima: Ground Zero 1945 quotes the secret 1947 USSBS Hiroshima report, vol 1, pp 13-14 (typeset edition):

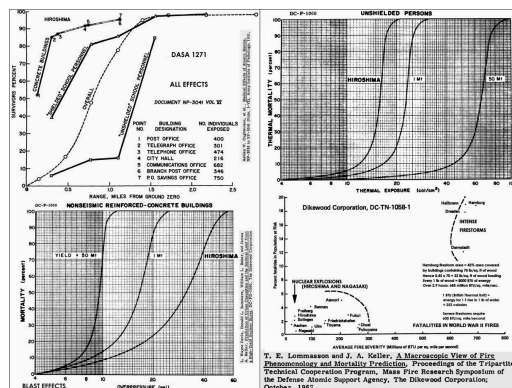
"... six persons who had been in reinforced-concrete buildings within 3,200 feet of air zero stated that black cotton blackout curtains were ignited by radiant heat ... but a

large proportion of over 1,000 persons questioned was in agreement that a great majority of the original fires was started by debris falling on kitchen charcoal fires, by industrial process fires, or by electric short circuits."



The electric power was rapidly cut off by the overload, so sustained heat came from charcoal fires in Hiroshima's houses (due to breakfast, i.e. 8:15 local time).

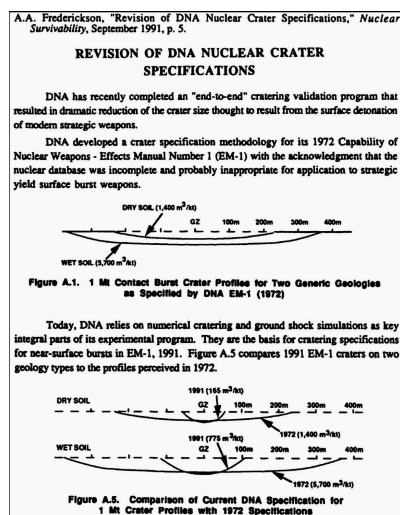
How many cities in the world which contain this type of overcrowded wooden housing with charcoal braziers are targets for nuclear terrorism today? Note also that formerly secret measurements of the specific activity of fallout show that only about 1% of the crater volume becomes lofted fallout dust, most of which falls back rapidly: nuclear tests in the 1950s thus confirmed that there is no significant nuclear winter (cooling) from the cratered dust lofted as fallout. This claim relies on the carbon soot from large-scale firestorms (not just fires) which are supposed to inject a stable, non-humid, layer of hygroscopic carbon soot to altitudes where it can be warmed and achieve stable buoyancy, blocking out sunlight from lower altitudes. This contravenes the facts concerning the black rain in Hiroshima, which rapidly precipitated the soot. Robock's poorly researched but politically correct (peer-reviewer passed) Climactic Consequences of Regional Nuclear Conflicts (Atmos. Chem. Phys., v7, pp. 2003–2012, 2007) maintains the nuclear disaster delusion by ignoring all factual data on firestorm dust from Hiroshima and Nagasaki.



Before quoting the firestorm details from the secret Hiroshima report, it is worth pointing out that all nuclear weapons stockpiled today are much smaller yield MIRV (multiple independently targeted re-entry vehicles) than the heavy fallout weapons tested in the 1950s. Most are relatively little more powerful than the Hiroshima and Nagasaki weapons. Professor Freeman Dyson debunked the popular myths in his 1985 book Weapons and Hope (Harper and Row, New York, pp. 33-41):

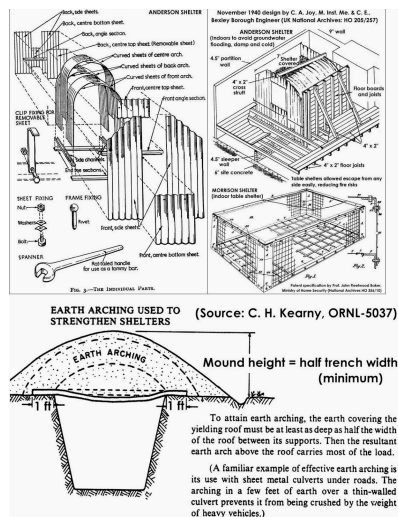
"In 1957 ... Nevil Shute Norway published *On the Beach*, a description of mankind wiped out by radiological warfare [he had also previously published guesswork speculations about war in Britain in his April 1939 novel, *What Happened to the Corbetts*, which incorrectly speculated that bombing would cause a lack of clean water and cause that diseases like cholera to spread]. Norway's poignant translation of apocalyptic disaster into the everyday voices of real people caught the imagination of the world. His book became an international best-seller and was made into a successful film. The book and the film created an enduring myth, a myth which entered consciously or subconsciously into all subsequent thinking about nuclear war. ... Almost all the details are wrong: radioactive cobalt would not substantially increase the lethality of large hydrogen bombs; fallout would not descend uniformly over large areas but would fall sporadically in space and time; people could protect themselves from the radioactivity ...

"The first generation of hydrogen bombs which were tested in 1952 and 1954 had yields running from ten to fifteen megatons. They were, from a modern point of view, absurdly and inconveniently large. ... By the time I paid my first visit to Los Alamos, in the summer of 1956, hydrogen bombs of the twenty-megaton class were already considered technologically obsolete; all the experts I spoke to were working on smaller bombs with lower yields. ... The race toward smaller bombs has been driven by ... the cruise missile and the MIRV (Multiple Independently-targeted Reentry Vehicle). ... As soon as cruise missiles and MIRVs are available, high-yield weapons rapidly become obsolete. ... The central paradox of the arms race is the discrepancy between public perception and reality. The public perceives the arms race as giving birth to an endless stream of weapons of ever-increasing destructiveness and ever-increasing danger. ... In the 1950s there was indeed a race to produce weapons of mass destruction ... Since then the arms race has been running strongly in other directions, away from weapons of mass destruction toward weapons of high precision. ... One consequence of the computer revolutions has been the replacement of big hydrogen bombs by the MIRV and the cruise missile."



The Effects of the Atomic Bomb on Hiroshima, Japan, secret, unpublished three-volume May 1947 report

The 14 October to 26 November 1945 U.S. Strategic Bombing Survey of Hiroshima is the key compendium of data, with much more data than any nuclear test report from the 1950s. A 1946 British Mission to Japan report includes photographs of air raid shelters which survived near ground zero in Hiroshima and Nagasaki, but gives the survival data of 15,000 school children (in teams clearing firebreaks mainly outdoors), without stating the survival rates inside modern buildings. This is also done in Manhattan District report on Hiroshima and Nagasaki, and in the 1950-77 editions of *The Effects of Atomic Weapons* and *The Effects of Nuclear Weapons* where no breakdown of survival data in different kinds of buildings and in the open is provided. In particular, the cause of the Hiroshima firestorm was determined by the U.S. Strategic Bombing Survey in its secret May 1947 report, but this was omitted from publications such as its unclassified report and the book, *The Effects of Atomic Weapons*.



Beginning with an incendiary raid on Tokyo on 9 March 1945 which Japanese records showed killed 83,793 and burned out 267,000 buildings (25% of Tokyo's buildings), sixty-four Japanese cities were destroyed by non-nuclear air raids. The detailed and objective analysis of these incendiary air raids was classified "Restricted" in April 1947 by the U.S. Strategic Bombing Survey in its unpublished limited distribution typeset and printed report Number 90, Effects of Incendiary Bomb Attacks on Japan, (108 MB PDF [linked here](#)). Part 3 (pages 65-118) documents the effects of the 9 March 1945 Tokyo incendiary raid, with photos on pages 104-109 very similar to the damage in Hiroshima and Nagasaki (combustible light frame buildings burned out with their steel distorted by the fires, and piles of charred bodies in streets). By omitting to publish this, an objective comparison of nuclear with conventional attacks was prevented.



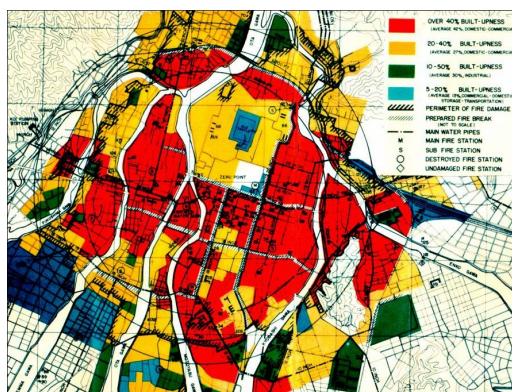
The Effects of the Atomic Bomb on Hiroshima, Japan, USSBS report 92, volume 2 (typeset May 1947 edition, secret)

Volume one, page 14: “the city lacked buildings with fire-protective features such as automatic fire doors and automatic sprinkler systems”, and pages 26-28 state the heat flash in Hiroshima was only “capable of starting primary fires in exposed, easily combustible materials such as dark cloth, thin paper, or dry rotted wood exposed to direct radiation at distances usually within 4,000 feet of the point of detonation (AZ).” Page 85 of volume one explains why so many people were outdoors in Hiroshima at 8:15 on 6

August 1945:

"Conditions on Morning of Attack. The morning of 6 August 1945 was clear with a small amount of clouds at high altitude. Wind was from the south with a velocity of about 4.5 miles per hour. Visibility was 10 to 15 miles. An air-raid 'alert' was sounded throughout Hiroshima Prefecture at 0709 hours [the weather survey B-29 aircraft flying one hour ahead of the nuclear bomber]. 'All-clear' was sounded at 0731 hours. The following circumstances account in part for the high number of casualties resulting from the atomic bomb:

- (1) Only a few persons remained in the air-raid shelters after the 'all-clear' sounded.
- (2) No 'alert' was sounded to announce the approach of the planes involved in the atomic-bomb attack.
- (3) The explosion occurred during the morning rush hours when people had just arrived at work or were hurrying to their places of business. This concentrated the population in the center of the city ..."



Volume two examines the ignition of clothing by the thermal radiation flash in Hiroshima:

Page 24: "Scores of persons throughout all sections of the city were questioned concerning the ignition of clothing by the flash from the bomb. ... Ten school boys were located during the study who had been in school yards about 6,200 feet east and 7,000 feet west, respectively, from AZ [air zero]. These boys had flash burns on the portions of their faces which had been directly exposed to rays of the bomb. The boys' stories were consistent to the effect that their clothing, apparently of cotton materials, 'smoked,' but did not burst into flame. ... a boy's coat ... started to smoulder from heat rays at 3,800 feet from AZ."

Page 28: "Wood poles as far as 10,000 feet in a southerly direction from AZ [air zero] and 13,000 feet in a northerly direction were flash-burned but the burns, generally not much more than a discoloration of the wood, were in all cases only on the side of the pole facing AZ. ... it is logical to conclude that wood (ignition temperature approximately 450 F) was not raised to its ignition temperature, except possibly in its most easily ignitable condition, such as dry-rotted. Surface spalling or roughening of granite by heat was observed near GZ and as far as 2,400 feet from AZ. This condition was only noticeable where the granite was directly exposed to rays from the bomb (surfaces facing AZ but shielded from it were not spalled) indicating that extremely high temperatures lasted only a fraction of a second. Asphalt road surfaces and asphalt-painted surfaces also were flash-burned, distinct shadows of objects being cast upon them, which again indicated that the radiated heat from the bomb created a temperature which was high but of short duration. ... Blisters as much as one-sixteenth inch high were raised on exposed tile at GZ (2,000 feet from AZ), decreasing in size as the distance from AZ increased until they were barely visible at 4,400 feet from AZ (4,000 feet from GZ)."

The National Archives
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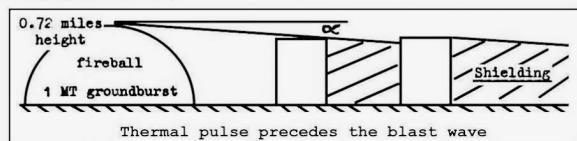
CI/SA 121

SCIENTIFIC ADVISER'S BRANCH

(Paper at Tripartite Thermal Effects Symposium, Dorking, October 1964)

IGNITION AND FIRE SPREAD IN URBAN AREAS
FOLLOWING A NUCLEAR ATTACK

G. R. Stanbury

INITIAL FIRE INCIDENCE

Assuming that buildings on opposite sides of a street which is receiving heat radiation from a direction perpendicular to its length are of the same height we take the average depth of a floor to be 10 ft.

Effect of Shielding: Estimation of the number of exposed floors

Distance from explosion miles	Angle of arrival α°	Width of street (units of 10 ft.)						
		2	3	4	5	6	7	8
3	13 $\frac{1}{2}$.5	.5	1	1	1.5	1.5	2
4	10	.5	.5	.5	1	1	1.5	1.5
5	8	.5	.5	.5	.5	1	1	1

SPREAD OF FIRE

From last war experience of mass fire raids in Germany it was concluded that the overall spread factor was about 2; i.e. about twice as many buildings were destroyed by fire as were actually set alight by incendiary bombs

<u>Number of fires started per square mile in the fire-storm raid on Hamburg, 27th/28th July, 1943</u>		
102 tons H.E.	48 tons, 4 lb. magnesium	40 tons, 30 lb. gel.
100 fires	27,000 bombs	3,000 bombs
	8,000 on buildings	900 on buildings
	1,600 fires	800 fires
2,500 fires in 6,000 buildings		

However, the important thing to note is that the total number of fires started in each square mile (2,500) was nearly half that of the total number of buildings; in other words, almost every other building was set on fire

When the figure of 1 in 2 for the German fire storms is compared with the figures for initial fire incidence of ~ 1 in 15 to 30 obtained in the Birmingham and Liverpool studies it can only be concluded that a nuclear explosion could not possibly produce a fire storm.

Page 34: "The fire wind seems to have reached its maximum velocity about 2 to 3 hours after the bomb explosion, following which it began to diminish in intensity. ... the heavier rain began about 3,500 feet west of GZ and extended westward about 5,000 feet. Light rain was reported to have fallen near the center of the city. ... Rain fell almost exclusively in the northwest area of the city ... accounted for by the light natural wind from the southeast which blew particles of hot carbon northwestward to a cooler area where moisture condensed about them and fell as rain."

Page 44: "A special effort was made to determine the probable cause of initial ignition in buildings in which there was fire and the reason for non-ignition in buildings in which there was no fire. By observation and by interrogation of persons who were in or near the buildings when the bomb detonated it was established that the probable causes of initial ignition in 40 of the 58 fire-resistive [not wood frame] buildings in which there was fire were as follows: 8 by heat radiation from the bomb (primary fire); 3 by blast disturbance of telephone or chemical laboratory equipment (secondary fire); and 29 by fire spread from exposing buildings."

Page 45: "Direct Ignition by the Atomic Bomb. ...

"(1) Each of the eight fire-resistive buildings in which primary fire was reported had unprotected windows facing AZ. Black cotton black-out curtains or light-weight paper, or both, were reported to have ignited initially in most of these buildings. All buildings in Hiroshima whose windows were not equipped with steel-roller shutters, which were considered light-proof, were required to have black-out curtains. Among the eight buildings which had primary fires, the farthest from AZ was Building 64 [Hiroshima Communications Hospital] at 5,300 feet [from AZ, or 4,900 feet from GZ].

"(2) A doctor who was in the first story of Building 64, a hospital 5,300 feet from AZ, stated that he discovered fire in the second story 10 minutes after the detonation, but was unable to identify the source. ... Cotton black-out curtains were drawn across the second-story windows only. ... Contents in the second story were totally damaged by fire, but in the first story only a few pieces of wooden furniture near the windows in the south wall facing AZ were scorched ..."

Page 70: "Direct Ignition by the Atomic Bomb. None of the 8 non-combustible buildings which had [contents] fire in them was reported to have had its contents ignited by radiated heat from the bomb. All except 3 (Buildings 46, 78, and 81) of the 12 non-combustible buildings had at least some unprotected wall openings facing AZ at the time of detonation of the bomb. The contents of these 3 buildings were shielded from direct radiated heat from the bomb by a blank wall, closed fire shutters, or another building. ...

Pages 74-75: "Combustible Construction. a. General. ... combustible buildings were load-bearing, brick-wall structures with wooden floors or roof, or both; steel-frame structures with wooden purlins and studs ... It was established that the probable cause of initial ignition in 23 of the 41 buildings which had fire was as follows: 3 by secondary fire (electrical equipment, stoves and industrial furnaces), and 20 by fire spread from exposing buildings. ... No eyewitness testimony was obtained to the effect that any one of the 41 fire-damaged combustible buildings was ignited directly by flash heat from the bomb.

"b. Direct Ignition by the Atomic Bomb. Although none of the 41 fire-damaged combustible buildings was reported to have been ignited by radiated heat from the bomb, it is considered probable that the contents of a few of the buildings which had unshielded wall openings facing AZ and which were within 4,000 feet of AZ were ignited in this manner. Since wooden poles and other exposed wood, even near GZ, were only flash burned by the bomb, it seems unlikely that exposed wood outside or inside buildings was ignited directly. ...

"c. Ignition by Secondary Fire. It was established that the initial ignition in three combustible buildings (3 [Hiroshima Electric Company's Yagurashita Substation 900 feet from GZ], 37 [Takano Bath House 4,200 feet from GZ], and 72 [Toyo Light Alloy Company 6,200 feet from GZ]) was probably by secondary fire. These comprise 13 percent of the cases in which the probable cause was determined in this class of building. Building 3, an electric substation, was ignited by short circuits in electric generating and transforming equipment after the blast had collapsed the combustible roof. ... Building 37, a public bath house, was ignited by a hot stove after the blast had collapsed the combustible roof so that it fell on the stove. The combustible debris and contents were completely consumed. Building 72, an aluminum foundry, was ignited by a hot stove ..."

Page 88: "Ignition of the City. ... Only directly exposed surfaces were flash burned. Measured from GZ, flash burns on wood poles were observed at 13,000 feet, granite was roughened or spalled by heat at 1,300 feet, and vitreous tiles on roofs were blistered at 4,000 feet. ... six persons who had been in reinforced-concrete buildings within 3,200 feet of air zero stated that black cotton blackout curtains were ignited by radiant heat ... dark clothing was scorched and, in some cases, reported to have burst into flame from flash heat [although as the 1946 USSBS report admits, most immediately beat the flames out with their hands without sustaining injury, because the clothing was not drenched in gasoline, unlike peacetime gasoline tanker road accident victims] ... but a large proportion of over 1,000 persons questioned was in agreement that a great majority of the original fires was started by debris falling on kitchen charcoal fires, by industrial process fires, or by electric short circuits. Hundreds of fires were reported to have started in the centre of the city within 10 minutes after the explosion. Of the total number of buildings investigated [135 buildings are listed] 107 caught fire, and in 69 instances, the probable cause of initial ignition of the buildings or their contents was as follows: (1) 8 by direct radiated heat from the bomb (primary fire), (2) 8 by secondary sources, and (3) 53 by fire spread from exposed [wooden] buildings."

Page 110: "The most common failure of wood-frame buildings was buckling of the relatively slender columns ... This resulted usually either from a mass displacement of the building away from the blast, or from panel walls being blown in and carrying the columns along."

Pages 126-8: "Structural damage by blast to multistory, steel- and reinforced concrete-frame structures did not extend beyond 2,000 feet from GZ. The buildings within this radius sustained an average of 12 percent structural damage. The average for all the buildings of this type in Hiroshima was 8 percent."

Page 96 gives the mean destructive distance for multistory steel and reinforced concrete frame (both earthquake and non-earthquake resistant) buildings at 700 feet, compared to 9,200 feet for Japanese (wood-pole constructed) wooden houses. The damaged areas are proportional to the square of the radius, so although the Japanese wooden houses were only destroyed out to a radius about 13 times greater than modern city buildings, they were destroyed over an area that was 173 times greater. Thus, for a

similar bomb yield and altitude, the number of damaged buildings in a modern city would be 173 times less than in Hiroshima on 6 August 1945.

Page 126 states that the effects would have been stronger near ground zero for a lower burst height, but "lowering the height of detonation would have increased the amount of shielding of one structure by another", thereby preventing the wide-area Mach stem enhanced blast and thermal effects like flash burns. Penney published extensive evidence of blast wave attenuation by the work energy done in causing damage (the force F due to a blast pushing a wall distance D in the direction of the blast uses energy $E = FD$, so energy is continually lost from the blast wave in a city, in doing damage).

Although fashionable books on Hiroshima tend to print pictures of the "blasted" twisted metal beams of the Odamasa Store (former Taiyo Theatre), USSBS building 52 at 2,800 feet from ground zero, page 322 explains it is an effect of fire: "Severe distortion caused by burning of combustible construction and contents." Furthermore, similar twisting of metal frames in wooden buildings occurred in the Toyko incendiary attack, but those photos remained Restricted. It is not a special "nuclear" effect, nor are the burned bodies in the streets of Tokyo photographed after the main non-nuclear attack, despite all the polemic and inaccurate claims attacking civil defense.

Volume three states on page 29:

"The atomic bomb detonated at Hiroshima, although it was an extremely powerful blast weapon, caused relatively little structural damage to the 81 important bridges. Scattered throughout the entire city, the bridges, 260 to 15,600 feet from ground zero (GZ), connected islands to islands and islands to the mainland, forming an adequate and efficient bridge system. ... impressive evidence of the ability of the bridges to resist the forces of the Hiroshima atomic bomb (air-burst at 2,000 feet) was found in the facts that (1) 10 of 19 timber bridges studied were undamaged, (2) 10 of 15 concrete bridges had no damage, and (3) 14 of 23 steel bridges were undamaged."

This is illustrated by the survival of the nuclear target point, the distinctive T-shaped Aoi bridge at the intersection of the Ota and Motoyasu Rivers (located 1,000 feet from ground zero due to the Hiroshima bombing error). Volume three at page 40 explains: "This bridge of plate-girder design received physical damage of a spectacular and interesting nature but it continued to carry unrestricted highway, pedestrian, and street railway traffic. The longitudinal steel girders suffered no great structural damage although a slight lateral deformation indicated that they had been highly stressed." Bridge 20 over the Motoyasu River at 2,900 feet from ground zero retained clear "shadows" of non-scorched asphalt cast by the hand railings, one of the pieces of evidence which allowed geometric determination of the burst location and altitude.

EMP effects in Hiroshima may have been masked by blast and fire damage, as indicated in volume three, pages 191-6: "Of the 7 substations of the Chugoku Electric Co., the Sendamachi substation and steam-electric plant at 7,700 feet from GZ were heavily damaged by fires which spread to the area. The Otemachi substation, 2,400 feet from GZ, was heavily damaged by blast and fires started by the short-circuited equipment. The Dambara, Misasa, and Eba substations were only slightly damaged at distances from GZ of 5,500 feet and beyond. ... Analysis of the Damage. The Hiroshima substation, 15,000 feet from GZ, was undamaged by blast as a direct effect, but the tremendous overload created by the short-circuited damaged electrical equipment in the city of Hiroshima tripped the circuit breakers in the substation and immediately interrupted all electrical services in the Hiroshima area."

the reason why there is statistically reliable data on high doses of radiation from Hiroshima and Nagasaki is simply the fact that many people - far from being instantly vaporized along with all buildings near ground zero - survived all of the nuclear explosion effects within the Hiroshima firestorm in the Bank of Japan and Geibi Bank Company, and extinguished fires 2-3 hours after the nuclear explosion when firebrands (burning cinders) were blown through broken windows from the wooden areas firestorm surrounding these modern concrete city buildings. The photos above are from the U.S. Department of Defense DCPA Attack Environment Manual 1973, chapters 3 and 8, which documents the successful firefighting in modern buildings within the Hiroshima firestorm. The diagram on the right shows substantial radiation protection factors in modern city buildings from fallout radiation. Amateur fire-fighting in the Hiroshima nuclear attack is more applicable to modern cities today which contain fire-sprinkler systems in vulnerable buildings and fewer wooden houses:

"The study involves the development of techniques to evaluate the effect of fire defenses on building fires caused by a nuclear burst and the incorporation of the fire-defense techniques in a fire-spread model. ... Preliminary computations indicate that within a few hours about 1/4 of the manpower available in a tract can suppress all fires created by the initial ignition of 1/2 or less of the buildings. Most of the manpower, particularly those in the self-help teams, can be diverted to other activities after several minutes of effort. The preliminary results show that ordinary citizens with minimal instruction and training can bring about very pronounced reductions in the total fire damage."

- Arthur N. Takata, Mathematical Modelling of Fire Defenses, IIT Research Institute, report AD0688941, 1969 (See also part 2, AD0705388.)

The U.S. Department of Defense's 1973 DCPA Attack Environment Manual, chapter 3, panel 26 used the examples of successful amateur fire-fighting modern Western-type city buildings in Hiroshima as proof that people can survive in modern city buildings exposed near ground zero within the firestorm of a nuclear explosion (due to overcrowded wooden housing areas). The data came from reports which remained limited or secret in distribution, however. Panel 27 in chapter 3 of the 1973 DCPA Attack Environment

Manual states:

"The evidence from Hiroshima indicates that blast survivors, both injured and uninjured, in buildings later consumed by fire were generally able to move to safe areas following the explosion. Of 130 major buildings studied by the U.S. Strategic Bombing Survey ... 107 were ultimately burned out ... Of those suffering fire, about 20 percent were burning within the first half hour. The remainder were consumed by fire spread, some as late as 15 hours after the blast."

This proves that the rapid room flashover filmed Upshot-Knothole Encore test effect in a litter-filled wooden and inflammable materials-filled room with a large window facing the fireball with no obstructions or "shadowing", did not occur in the 80% humidity conditions of Hiroshima, far higher than in the drier Nevada test site desert. Report DASA-1251 states that the humidity at the Nevada test site for the over-hyped ENCORE nuclear test was only **19%**, whereas the humidity in **Hiroshima was 80%** and in **Nagasaki it was 71%** (source: table VI of William E. Loewe, Lawrence Livermore National Laboratory report UCRL-90258, 1983). Since most modern Western cities are located either near rivers or the coast, the nearby large bodies of water ensure that they *never* experience 19% humidity. (Hot weather simply increases evaporation rates.)

Although humidity has relatively little effect on the ignition energy for thin fine kindling materials, the proportionate effect is far greater for thicker fuels with the same equilibrium moisture content. The thermal flash can dry out damp paper; but it cannot dry out damp wood (a maximum of 0.85 mm of the surface of wood was charred by 50 cal/cm² from a 30 kt test in 1955 as proved by Kyle Laughlin in nuclear weapon test report WT-1198, 1957). Therefore, rapid flashover does not occur in realistic city humidity (most cities are beside rivers, lakes or the ocean). It did not occur from thermal radiation in Hiroshima.

Panel 3 of chapter 3 of the 1973 DCPA Attack Environment Manual also points out that the predictions of thermal burns in The Effects of Nuclear Weapons omit protection due to shadows by tall buildings in modern cities, and duck and cover evasive action: "Persons caught in the open or near windows can also take advantage of the relative slow pace of the thermal pulse from large-yield weapons. ... Further out, even more time would be available. In the light damage area (1 to 2 psi), evasive action within the first four seconds would avoid significant burn injury."

Buildings protect against thermal burns and fire ignition by the simple shadowing effect. The badly injured people in Hiroshima in many documented survivor accounts of serious burn and flying glass injuries had moved into a position (behind windows or outdoors) with a direct radial line to the fireball, to watch the B-29 bomb carrying aircraft.

In *The Number of Atomic Bombs Equivalent to the Last War Air Attacks on Great Britain and Germany* (National Archives piece HO 225/16, 1950, Top Secret for 8 years then Restricted until 1980), the British Home Office Scientific Advisory Branch points out nuclear war damage and casualties tends to be exaggerated by the media's incorrect use of Hiroshima. For example, it found that actual WWII damage on Britain was found to be equivalent to 52 Hiroshima bomb's "for the night raiding conditions on London in the last war, where something like 60% of the population were in houses, 35% in shelter and 5% in the open ..."

This was the reason for the 60,000+ British WWII air raid casualties; many people were NOT sheltered well. 100% of the flying glass injuries, the most prevalent injuries of WWII bombing, were from people standing behind windows watching the aircraft dropping bombs. This stupidity was caused by the needless SECRECY OF CIVIL DEFENCE EFFECTIVENESS DATA AND WEAPONS EFFECTS PHYSICS. If people were better informed about how blast waves shatter glass windows at normal incidence to the blast, fewer injuries would have occurred. Proof: see R. C. Bell, "An analysis of 259 of the recent flying bomb (V1) casualties", British Medical Journal, 25 November 1944, p689:

"Flying glass ... was the most frequent cause of injury ... Many included severe damage to the eyes ... most of the injuries were above the nipple line, chiefly of the face and neck: a large proportion were received when looking out of windows - a modern version of curiosity killing the cat. We had 5 cases of perforating wounds of both eyes and 10 perforating wounds of one eye. The globe was usually completely destroyed. **Many of these injuries were avoidable, and therein lay their great sadness.**" {Ironically, in 1983 the BMJ reversed its own civil defence "duck and cover" advocacy of 1944, in its commie-led propaganda efforts for appeasing the USSR in the arms race. Civil defense "duck and cover" was lampooned in 1983!}

Note that in both WWI and WWII the vast majority of the weapons and explosives used were manufactured during the war itself, so prior disarmament would not have assured that no weapons were used. One assumption in most disarmament propaganda is that a war is an instant all-out blitz; this assumption was made prior to WWI and was proved false, and again before WWII and was proved false again. The whole of the second-strike capability of hardened silos and hidden submarines designed by RAND Corporation strategists in the late 1950s was specifically aimed at removing any temptation for such a short knock-out war. This second-strike system remains and takes away any rational incentive to launch a surprise all-out attack. This is why, as President Obama stated, the major risk from nuclear weapons is a limited nuclear attack due to terrorism and rogue states. A nuclear attack will have a similar effect to large WWII air raids, but the effects will be easier to mitigate than V2 warheads, if people are informed about the reality of nuclear weapons effects phenomenology, and duck before the blast wave arrives, stamp out fires, and take cover from fallout. EMP will often rapidly disconnect the electrical fire risk by activating circuit breakers in substations, as at the Nevada test site after EMP pick up in long cables which carried thousands of

amps from close-in locations out to the control point 30 miles away (not only to the 2 psi overpressure range gives in Glasstone and Dolan, which confuses the range to which cables pick up EMP with the range to which currents can be carried by cables). This is made clear in B. J. Stralser's secret 30 April 1961 E.G. and G. report Electromagnetic effects from nuclear tests.

Distributing the same explosive energy over many small bombs (rather than a single large bomb) in conventional is actually more damaging, since people have no time to respond near a small bomb that explodes. Additionally, the overpressure-damaged area from a bomb scales up only as the two-thirds power of the explosive energy, and is equivalent to megatons of nuclear weapons per month. The Manhattan Project in 1945 at best could produce only two bombs per month. There is a tendency among many politicians, historians, disarmers, and others to down-play conventional warfare and to exaggerate the effects of nuclear weapons, by misleadingly selective use of statistics. (Source: Overall Report, European War, USSBS, 1945, charts 3 and 4. Chart 1 in this document shows that 2,697,473 tons of bombs were dropped on the occupied countries in Europe by the US Army Air Force and the RAF, including 50.3% on Germany, 21.8% on France and 13.7% on Italy.

In 1945, essentially all of the bombing was on Germany. The fact that civilian damage can be accomplished by conventional warfare led the British Minister of State, Foreign and Commonwealth Office (William Waldegrave) to explain in the 28 July 1988 House of Commons debate on Disarmament (Hansard HC Deb 28 July 1988 vol 138 c778): "Britain and Europe have suffered dreadfully from conventional wars during this century, and modern conventional weapons are many times more destructive than those of 40 years ago. ... That is why we must insist that nuclear arms control must not make Europe safe for conventional war ..."

Nuclear weapons were clearly not responsible for WWI or WWII, despite false and misleading anti-civil defense propaganda spread by Noel Baker, Joseph Rotblat and others who found it immoral to use nuclear weapons for ending WWII but were happy to work on them when it happened to suit their personal pet politics. When a terrorist uses a weapon and thousands of people don't duck and cover against blast, glass and radiation, what does the great "free" media of fashionable groupthink prejudice do then? Laugh at the needless suffering? Pretend that they followed the consensus of politically dogmatic consensus that was justified by the long term ambition to end nuclear deterrence and go back to conventional war, and to do this by telling lies about civil defense? Or do what it usually does, and learn the lessons when it is too late to prevent needless suffering? here.)

London received 71 major raids (over 100 tons/raid) in the Blitz from 7 Sept 1940 to 16 May 1941, consisting of 18,291 tons or 18.291 kilotons of high explosive, over twice the blast yield (8 kt) of the 16 kt Hiroshima nuclear bomb (O'Brien, Civil Defence, 1955, Appendix IV, p681). These explosives were mainly 50 kg and 250 kg (B'Brien, p505), an average of about 0.1 ton of explosive per bomb. The scaled area equivalent megatonnage for overpressure damage areas and casualties from the London Blitz is therefore 4 thermonuclear weapons, each with a total yield of 2 megatons (1 megaton of which is blast):

$(4 \text{ bombs}) \times (1 \text{ megaton TNT blast yield})^{2/3} = (182,910 \text{ bombs of } 0.1 \text{ ton each}) \times (10^{-7} \text{ megatons blast yield})^{2/3}.$

Home Office experts had experience from the WWII Blitz, visited Hiroshima and Nagasaki in 1945 after the nuclear air bursts (as part of the British Mission to Japan), and set up Anderson shelters at Monte Bello to assess their protection against nuclear war at the first British nuclear bomb test. The first manual they issued on nuclear attack was the excellent 1950 "Atomic Warfare" with 24 photos of damage from blast, heat and fire from Hiroshima and Nagasaki and the protection from heat flash by shadows, a discussion of shelters in Hiroshima and Nagasaki, a blast pressure graph and discussion, and a Foreword by Labour Prime Minister Clement Attlee. Then, under Prime Minister Churchill, in 1953 the British Government published its excellent civil defence training notes "The atom bomb, its effects and how to meet them: Heat" and "The atom bomb, its effects and how to meet them: Effects on personnel".

Most later British manuals appeared to be mindless drivel, despite being based on more solid evidence from nuclear testing, because all the evidence was secret and had to be omitted, leaving patronising advice that looked pathetic to readers. Even the Hiroshima and Nagasaki shelter photos and discussions were omitted from future Home Office Nuclear Weapons and Protect and Survive handbooks, instead of adding more photos and data from Hiroshima and Nagasaki to inform the readers about the possibilities for survival. However, the 1960 *Civil Defence Handbook no. 7 Rescue*, linked here does reprint key Hiroshima and Nagasaki building damage photos, showing building response to blast from the standpoint of improvised rescue techniques, comparing it to the London Blitz. Also in 1960, concise *Civil Defence Instructors' General Notes* (78 pages) were published which provide an excellent brief overview of civil defence against conventional high explosive bombs, nuclear, chemical and biological weapons.

What went wrong with civil defense during the Cold War era was the move towards hubris, arrogance, patronising, dependence upon authority, and increasing secrecy over the basis of the evidence for widely mocked and attacked civil defense countermeasures against nuclear, chemical and biological weapons. Instead of focussing on making the lessons of Hiroshima clear for all to understand, these lessons went unpublished or were actually classified secret. The failure of the government to effectively and scientifically answer and demolish false propaganda attacks in the media against civil defense undermines national security when the chips are down:

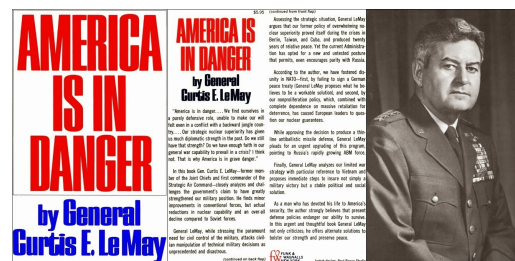
"The only way to win a war is to escalate it one way or another above what the enemy can endure. If we feel that we cannot win without unacceptable risk we have no

business fighting in the first place.

"There are just two checks on escalation. One is the waning of motivation for fighting the war in the first place. A long grinding war of attrition on the ground might achieve this ... The second check on escalation is to so overwhelm your enemy with such heavy and rapid destruction that he loses all hope of winning. Then surrender is an attractive choice when compared to inevitable defeat or certain death. This, of course, is the way we brought Japan to terms in 1945. It was unnecessary to invade with infantry and fight a ground war. We seem to have forgotten this fact. Even though Japan had four million troops under arms with two million guarding her shores, not a shot was fired. We invaded with fourteen hundred military administrators, by air. Not a life was lost in this invasion.

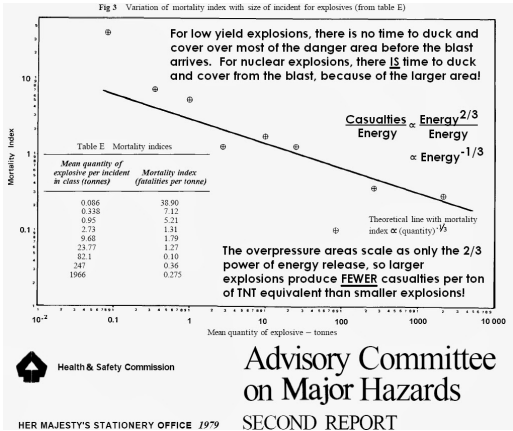
"The Japanese had been highly motivated to wage war against us. Kamikaze tactics and no-surrender policies were typical. Yet a realization that Japan simply could not win and the certainty that continued resistance meant mounting devastation caused her to toss in the sponge. ... In the final analysis, hundreds of thousands of lives were saved and dozens of cities spared ... In Korea ... there were three and a half million military casualties on both sides during three years of drawn-out war. Over a million civilians were killed ..."

- General Curtis E. LeMay, America is in Danger, pages 307-9.

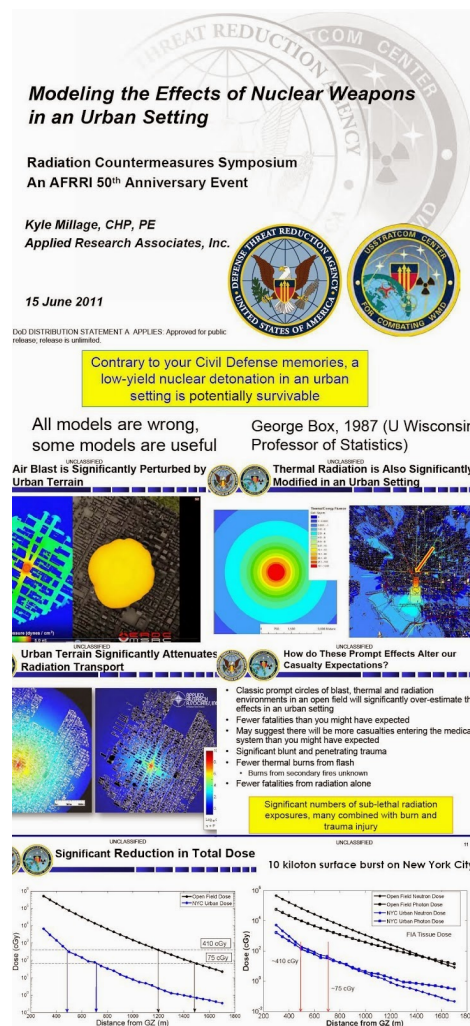


In a surprise attack, conventional weapons give practically no time for defensive countermeasures, unlike the bright flash prior to the blast arrival over most of the damaged area in a nuclear explosion, which acts as a warning. With nuclear weapons, there is an automatic warning prior blast and fallout arrival over the wide areas of destruction, which gives time for most people to take effective countermeasures and was used by people who experienced the Hiroshima nuclear explosion before travelling to Nagasaki and surviving the second nuclear explosion. As explained by Professor Joseph O. Hirschfelder, "The Effects of Atomic Weapons", Bulletin of the Atomic Scientists, August-September 1950, vol. VI, no. 8-9, pp. 236-40 and 285-6 (quotation from page 238):

"Because of the comparatively long duration of the thermal radiation, exposed personnel can greatly reduce their exposure by ducking behind an obstacle or dropping prone. Ducking behind an obstacle would also considerably reduce the exposure to gamma rays and place the person in a more sheltered position to withstand the flying debris which will shower the area a few seconds later when the blast wave passes. It takes the blast wave one second to reach one-half mile, three seconds to reach one mile, and seven seconds to reach two miles."



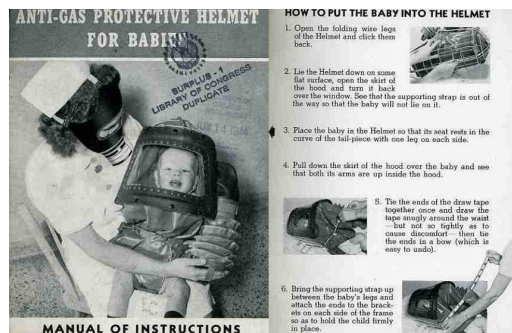
Dr Samuel Glasstone in 1950 compared psychological fears of radiation to ignorance of gas warfare in Effects of Atomic Weapons, 1950, page 289, paragraph 8.116: "perhaps the most important application of radiological warfare would be its psychological effect as a mystery weapon, analogous to the initial use of poison gas ... The obvious method to combat radiological warfare in this case is to understand and be prepared for it."



By educating people in simple effective fallout countermeasures, the use of fallout in warfare by ground bursting nuclear weapons may be discouraged, like gas in WWII. In the event of a disaster, panic can be replaced by actions that will reduce the danger. The gas illusion:

"In the next war, with its overwhelming air raids, its gases blotting out life over square miles, its bacilli, possibly its rays, munitions works and the services of the rear will be special objects of attack."

- Irwin Will, The Next War: An Appeal to Common Sense, E. P. Dutton, New York, 1921, p77 (best-seller first published by Dutton in April 1921, 23rd printing, October 1921).



"The chemical Warfare Research Department [prior to 1927] had been making experiments to determine how long persons could remain under certain conditions in a 'gas-proof' room ... a broadcast in February [1927] by Professor Noel Baker, on 'Foreign Affairs and How They Affect Us' ... claimed, 'all gas experts are agreed that it would be impossible to devise means to protect the civil population from this form of attack'. The Chemical Warfare Research Department emphatically disputed the accuracy both of the details of the picture and of this general statement. They considered it unfortunate that statements of this nature should have been broadcast to the public, particularly after the Cabinet's decision that the time was not ripe for education of the public in defensive measures."

- T. H. O'Brien, Civil Defence (official U.K. history), 1955, p31.

Like civil defense attacking polemics today, Noel-Baker had made a completely false claim about "all experts" agreeing that gas masks and civil defense are useless in that influential and dangerous February 1927 BBC radio broadcast, Foreign Affairs and How they Affect Us. As British official civil defence historian Terrence H. O'Brien states, the British committee on civil defence chickened out of censoring or even bothering to correct Noel-Baker, despite disputing his assertion in secret meetings. They agreed that he was wrong, but then agreed to do nothing, because they didn't want to risk the work of censoring all BBC broadcasts on gas war. In the true spirit of British officialdom, they only considered censorship, not democratic argument by exposing the falsehood and demolishing it with facts. The Cabinet had decided gas defenses were a classified secret, so their hands were tied as they were bound by the Official Secrets Act. However, Noel-Baker was not telling the truth and the original 1915 British gas mask inventor Professor J. B. S. Haldane (who one of the experts on the gas civil defence committee advising the Cabinet) had published a very different view of gas warfare in his 1925 book *Callinicus: A Defence of Chemical Warfare*. It is a fact therefore that was a lie for Noel-Baker to two years later make his claim about a complete consensus of experts denying defense against war. Here are Noel-Baker's lying February 1927 BBC broadcast words of political Correctness and groupthink ideology:

"In the first phase of the next war,' says a high authority, 'there is little doubt that the belligerents will resort to gas bomb attack on a vast scale. This form of attack upon great cities, such as London or Paris, might entail the loss of millions of lives in the course of a few hours. Gas clouds so formed would be heavier than air and would flow into the cellars and tubes in which the population had taken refuge. As the bombardment continued, the gas would thicken up until it flowed through the streets of the city in rivers. All gas experts are agreed that it would be impossible to devise means to protect the civil population from this form of attack'."

(Source: Peter Adey, *Aerial Life*, Wiley-Blackwell, 2010, p189.)

Noel-Baker, athlete and Quaker disarmament typical of the ideologues exaggerating weapons effects and denying facts about the efficiency of civil defence countermeasures today, later won a Nobel Peace prize and became a Lord, but his fear-mongering and scare-mongering lies about civil defence actually helped to enable Hitler to murder millions by cultivating appeasement. I have yet to find any historian who addresses the ideology whereby lies about civil defence for utopian dreams of disarmament are compared to Adolf Hitler's or Joseph Stalin's ideological lies of eugenics or Marxism; all are ideologies where "the ends justify the means" and since the ends are not achievable in the real world, all of these ideologies which rely on lying fear-mongering about the alleged evils of weapons, minority races, or genuine democracy. He failed to achieve peace and his lying ideology against civil defense actually made the war risks and the war dangers of the world worse, by removing support for Churchill and allowing public empathy to side with Hitler, even to the point of the British football team being forced to give the Nazi salute at a game in Germany.

Support for appeasement was due in large part to the anti-civil defense, pro-fascist collaboration, groupthink polemics which played up WWI effects, but Noel-Baker **did not**

do this by accident or genuine error, because he was still continuing the same inaccurate anti-civil defense polemics in 1980 to deny any possibility of civil defense being of value under any circumstances, again by examining only the worst and least probable possibility, despite this being proved in WWII to be a contrived, unbalanced piece of sophistry. This is like denying the value of hospitals, seat-belts or life-boats by the trick of only considering worst-case eventualities where they are of minimal utility. House of Lords Home and Civil Defence Debate on 5 March 1980 (Hansard, vol 406 cc260-386):

"... I want to argue that no measure of civil defence, in any war which we can realistically expect to have, will save a single life, and that to nurse a hope of safety from civil defence is to indulge a self-deceiving, futile and dangerous illusion—self-deceiving and futile because, as I said, civil defence will not save our lives; dangerous because it diverts attention from the only policy that gives us any genuine hope. It makes the public think that there will be safety where no safety is. It obscures the fact that the only way to avert disaster is to avert the war, and to abolish those offensive weapons without which aggressions cannot be begun. ... My Lords, the first atom bomb weighed two kilogrammes—less than 5 lbs [sic]. ... Against such a danger civil defence offers us no help ..."

But this is another falsehood of the same type as his 1927 BBC broadcast on gas: as WWII indicated (where gas was not used against Britain or Germany), by reducing the scale of the disaster if a terrorist or accidental nuclear explosion should occur, civil defense could help avoid escalation to a massive war by minimizing the effects even within war itself, stabilizing the political situation.

Denying civil defense facts, apart from maximising casualties, is a constraining act which forces only military responses in a crisis. Noel-Baker was never openly criticised for his propaganda and also dismissed civil defence against biological warfare in a letter to the New Scientist (14 Dec 1961, no 265, p700), after they published an article called "Biological agents in warfare and defence" by Dr LeRoy D. Fothergill of the U.S. Army Chemical Corps:

"May I express my gratitude to you for publishing the article ... Dr Fothergill writes with admirable restraint ... very little progress has been made in ... defending the citizen ... there is at present no defence against them, and none likely in the measurable future."

Fothergill's article (aimed at raising concern to encourage more research and defences) gave outdoor data for wind dispersion of spores released by a ship off the Californian coast in 1950. Being inside with the windows closed gives good protection while the cloud is blown past (even anthrax has a half life of only 25 minutes outdoors in bright sunlight in dry air and less in humid air; see Field Manual FM 3-3, 1992, Fig. B-1). Noel-Baker deceptively seized on an omission as if proof that countermeasures do not exist, exactly what he had done in 1927 when the government kept civil defence experiments and weapons effects facts secret.

"In May 1929, the Women's International League for Peace and Freedom sponsored a conference in Frankfurt on 'modern methods of warfare and the protection of civil populations'. ... While the overall objective of the proceedings was to enhance pleas for disarmament, individual participants did so by calling attention to the stakes of future wars ... conference speakers emphasized that 'the worst of the past gives little idea of what would be the horrible reality of a future war,' one where 'the civil population ... will be massacred by gas bombs from thousands of aeroplanes ...'"

– Professor Susan R. Grayzel, *At Home and Under Fire*, Cambridge University Press, 2011, pp149-50 (citing Getrud Woker, "The Effects of Chemical Warfare," in *Les methodes modernes de guerre et la protection des populations civiles / Chemical Warfare: An Abridged Report of Papers Read at an International Conference at Frankfurt, London, 1930*, p45).

"Most of the books and pamphlets on the subject seem to me to be of the nature of propaganda ... a great many opponents of the Government state that such things as gas-masks and gas-proof rooms are completely useless, that London could be wiped out in a single air raid ... a frightful responsibility rests on those who expose British children to such a death in order to score a point ... In 1915 ... I was at that time a captain in a British infantry battalion and was brought out of the trenches to St. Omer, where I assisted my father in the design of some of the first gas masks. ... one would be safe in a phosgene concentration of one part per thousand, of which a single breath would probably kill an unprotected man. Hence in practice such a mask is a very nearly complete protection. ... These gases can penetrate into houses, but very slowly. So even in a badly-constructed house one is enormously safer than in the open air. ... even if a new gas is produced, it is very unlikely that it will get through our respirators. ... Now all the poisonous gases and vapours used in war are heavier than air, so it is thought that they would inevitably flood cellars ... But within a short time it would be mixed with many times its volume of air. Now air containing one part in 10,000 of phosgene is extremely poisonous. But its density exceeds that of air by only one part in 4,000."

- Professor J. B. S. Haldane, A.R.P., 1938.

"Ever since the Armistice, three classes of writers have been deluding the long-suffering British public with lurid descriptions of their approaching extermination in the next war ... pure sensationalists, ultra-pacifists, and military experts. ... they do want to get their manuscript accepted for the feature page of the Daily Drivel or the Weekly Wail. In order to do that, they must pile on the horrors thick ... The amount of damage done by such alarmists cannot be calculated, but is undoubtedly very great. ... It is significant that they concentrate almost unanimously on poison gas, and that the dangers of high explosive and incendiary bombs are seldom stressed. The reason, of course, is

obvious – poison gas has a much greater news value. It is still a new and mysterious form of warfare, it is something which people do not understand, and what they do not understand they can readily be made to fear. ... Millions of people, perhaps, have been impressed by the authority and reputation of Mr H. G. Wells into believing that this picture represents the plain truth.”

- Professor James Kendall (a 1917 Chemical Warfare Liaison Officer), *Breathe Freely! The Truth About Poison Gas*, G. Bell & Sons, London, 1938, pp. 11-13.

“... in spite of the tremendous scale of the violations it still took the Germans five years, from January 1933 when Hitler came in to around January 1938, before they had an army capable of standing up against the French and the British. At any time during that five-year period if the British and the French had had the will, they probably could have stopped the German rearmament program ... one of the most important aspects of the interwar period [was] the enormous and almost uncontrollable impulse toward disarmament ... As late as 1934, after Hitler had been in power for almost a year and a half, [British Prime Minister] Ramsey MacDonald still continued to urge the French that they should disarm themselves by reducing their army by 50 per cent, and their air force by 75 per cent. In effect, MacDonald and his supporters urged one of the least aggressive nations in Europe to disarm itself to a level equal with their potential attackers, the Germans. ... Probably as much as any other single group I think that these men of good will can be charged with causing World War II. [Emphasis by Kahn.] ... At no time did Hitler threaten to initiate war against France and England. He simply threatened to ‘retaliate’ if they attacked him. ... an obvious prototype for a future aggressor armed with H-bombs ”

- H. Kahn, *On Thermonuclear War*, 1960, pp. 390-1 and 403.

Future President John F. Kennedy's college thesis, *Why England Slept*, Sidgwick & Jackson, London, 1962 (first published 1940), pages 7, 169, 170 and 179:

Page 7: “What had England been doing while Hitler was building up this tremendous German Army?... To say that all the blame must rest on the shoulders of Neville Chamberlain or of Stanley Baldwin is to overlook the obvious. As the leaders, they are, of course, gravely and seriously responsible. But, given the conditions of democratic government, a free press, public elections, and a cabinet responsible to Parliament and thus to the people, given rule by the majority, it is unreasonable to blame the entire situation on one man or group.”

Page 169: “... I believe, as I have stated frequently, that leaders are responsible for their failures only in the governing sector and cannot be held responsible for the failure of a nation as a whole ... I believe it is one of democracy's failings that it seeks to make scapegoats for its own weaknesses.”

Page 170: “Herbert Morrison, the able British Labour Leader ... was being criticised in 1939 for co-operating with the Government ... ‘At the beginning I got plenty of abuse from the irresponsibles because I said that Labour administrators must play their full part in A.R.P. [Air Raid Precautions, i.e. civil defense], which was denounced as a fraud and a plot... to create war psychology. For Labour local authorities to co-operate with state departments in this task was treachery ... no A.R.P. could possibly be effective’.”

Page 179: “... the dictator is able to know exactly how much the democracy is bluffing, because of the free Press, radio, and so forth, and so can plan his moves accordingly.”

Kennedy stuck to his guns with civil defense. After the first Russian nuclear weapon test, he wrote a public letter to President Truman warning of the risk of an “atomic Pearl Harbor”, published in the *New York Times* of 10 October 1949. Kennedy also attended the 22-26 June 1959 nuclear war congressional hearings which featured Herman Kahn on civil defense, and Kennedy used the supposed missile gap as the basis for his Presidential election campaign (which in the end only appeared in about 1975 when the USSR achieved parity and went on bankrupting itself by churning out more missiles). Kennedy set up the public fallout shelter allocation in 1961. All of this goes back to his time in the American Embassy in 1939 and the research he did into the connection between British civil defense apathy in the 1930s and appeasement (even encouragement) of fear exploiting Nazi thugs. He could see that aggressors are all alike: they are all self-deluded, they all have an ideology, and they all use fear-mongering lies.

Professor Susan R. Grayzel, *At Home and Under Fire: Air Raids and Culture in Britain from the Great War to the Blitz* (Cambridge University Press, 2012) finds that (p176): “a variety of voices reflected on the enormous destructive potential of air power in interwar Britain, and many determined to prevent the imagined horrors of the next war from coming true. Several important constituent bodies of the nation – including key segments of women, trades unionists, and members of the state itself – worked fervently for disarmament and to challenge efforts to accept aerial and perhaps even chemical attacks as somehow inevitable in a future war.”

Pro-disarmament propaganda which was based entirely on exaggeration of weapons and war effects (ignoring the real dangers of ideologies like racist eugenics and ethnic cleansing) and denials of civil defense efficiency went largely unopposed until 1938, partly due to official secrecy to keep both the enemy and the public ignorant (while they were being sold exaggerations by the media). To be heard, disarmament activists had the temerity to falsely dismiss all countermeasures, to exaggerate the scale of

potential attacks, and to ignore the fact that countermeasures were a tried and tested solution (unlike disarmament without civil defense, i.e. complete vulnerability). Public apathy allowed doom exaggerations to be mainly supported or allowed to circulate without correction. How many newspapers, popular historians, or TV stations stand up and publish the facts on nuclear weapons and Hiroshima today? None. Civil defense has never had any backing and has always been violently opposed by ideologies which prefer war. When Noel-Baker claimed to have an "authority" which proved a consensus of gas war experts who knew gas had no countermeasure, he was simply lying to the nation. In any case, his claim that science is determined by a religious type consensus, was again lying to the nation, because science is distinguished from political agreements by its factual evidence rather than its fashionable popularity and the number of votes its adverts gain. Never mind how "unpopular" or "unfashionable" it is for a gas mask or duck and cover evasive action to protect the public, it is fact.

For a full analysis of the small amount of fallout measured in Hiroshima and Nagasaki, see W. McRaney and J. McRaney, Radiation dose reconstruction U.S. occupation forces in Hiroshima and Nagasaki, Japan, 1945-1946, DNA 5512F, 1980, and for a comparison of the fallout pattern to self-induced rainout computer predictions see Charles R. Molenkamp, An Introduction to Self-Induced Rainout, URCL-52669, 1979, and Numerical Simulation of Self-Induced Rainout Using a Dynamic Convective Cloud Model, UCRL-83583, 1980. Neutron-induced activity dose rate and decay rate data from the 2002 Japanese dosimetry project (DS02) is linked here and is verified by neutron induced activity in debris from both cities. The only fully scientific (quantitative) discussion of the relative contributions of initial flash radiation, neutron induced activity, and fallout as a function of burst altitude is given in Chapter 5 (Nuclear Radiation Phenomena) of Dolan's effects manual EM-1.

White shows that Hiroshima's Post Office, 0.12 mile from ground zero, was gutted by fire hours later well in the firestorm, but over 50% of its 400 occupants had already survived the explosion and escaped. Photos of the final burned out areas show firestorm effects which occurred after survivors had time to escape, not unsurvivable, instant Encore-type thermal radiation-induced newspaper-filled inflammable room flashover in a dry desert. The firestorm in Hiroshima took 2-3 hours to reach a maximum intensity. The secret (full) U. S. Strategic Bombing Survey May 1947 report on Hiroshima interviewed over 1,000 survivors, and their evidence was that the fires were started by the blast wave overturning the obsolete charcoal braziers in obsolete city-centre wooden housing slums, which were full of inflammable paper screens and bamboo furnishings. The report shows that no building in Hiroshima had any fire-sprinkler system, and that the only fires started inside modern buildings by thermal radiation were in black coloured (heat absorbing) blackout air-raid curtains within 2,500 feet of air zero (close to ground zero). These and firebrands entering the Bank of Hiroshima through broken windows were easily extinguished by survivors with water buckets, in the centre of the "firestorm".

This obsolete mechanism caused the firestorm, not thermal flash ignition, which cannot directly ignite sound wood. The danger from exaggerations of weapons effects in order to underplay civil defense and leave yourself vulnerable to an enemy was clearly demonstrated in the 1930s, when British Government scientists exaggerated war effects. They exaggerated the effects by using the July 1917 surprise attack bombing data, when people stood outdoors during the air raid, or watched the explosions ignorantly from behind glass windows: exactly the situation at Hiroshima and Nagasaki, which were again surprise attacks. This exaggeration by using 1917 data led to Nazi appeasement in the 1930s, when they could have been stopped with minimal casualties if civil defense effectiveness was understood earlier. Civil defense did work to prevent a poison gas attack by the Nazis, despite gas masks never being 100% effective: the efficiency of the countermeasure was sufficient that the Nazis never tried to use their 12,000 tons stockpile of tabun nerve gas in WWII.

Civil defense did not need to be 100% effective in order to remove the attractiveness of "weapons of mass destruction" to coercive thugs wishing to threaten civilian targets. Exaggerations of weapons effects, by downplaying or ignoring simple countermeasure effectiveness prior to World War I, actually encouraged the warmongers to plan for WWI prior to 1914 in the belief of achieving a quick victory using big guns and other offensive weapons. By ignoring the efficiency of simple improvised blast and flying missile defenses like trenches against explosive blast, shelling, mortar fire, shrapnel and machine guns in the American Civil War, European planners exaggerated weapons effects predictions.

This exaggeration led to WWI by falsely predicting a quick and easy outcome from the use of offensive bombardment and machine guns against completely exposed and unprotected opponents. Simple trenches and gas masks in WWI proved highly effective at reducing casualties, thereby turning the war into a protracted affair that Germany had not prepared for. Thus, two world wars have proven conclusively that deceptive exaggerations and attacks on defensive countermeasures against explosive and contaminating weapons effects like blast and persistent mustard and nerve gas did not guarantee peace. Instead, weapons effects exaggerations for "peace" actually encouraged thugs to acquire precisely the most scare-mongered weapons for coercive intimidation, and to use them to threaten the unprepared into appeasement, causing wars.

Some myths debunked: 1. nobody was "vaporized": people are 70% water which has far too high a specific heat capacity and latent heat of vaporization even at ground zero, 2. fallout and neutron induced activity were insignificant compared to the initial nuclear radiation doses, because of the height of burst, 3. the long term effects of radiation were trivial compared to the natural cancer rate in an unexposed control group, and genetic effects were insignificant, 4. conventional weapons killed more people and resulted in more deaths and suffering because conventional wars lasted for years: the "blunt knife" is more dangerous overall, because it is likely to slip and cause injuries, because you need to use more force on a blunt knife to achieve any given result, 5. shallow underground bursts avert collateral damage around bunkers, while retaining

credible deterrence. Downwind fallout can be washed or brushed off, and nuclear radiation is attenuated by buildings, 6. nuclear weapons with individually larger areas of effects are actually easier to protect against than an immense number of conventional weapons, because the blast wave is delayed for a longer period of time after the bright visible flash over most of the damaged area: fashionable lying "films" falsely superimpose the sound on the flash to "discredit" civil defense, one of the most sinister deceptions. The same applies to fallout: the further an effect has to travel, the longer it takes to arrive, so there is time to evacuate or to take cover in a safe building. Conventional weapons failed to deter two world wars, which explains why Cold War nuclear weapons were relied upon for deterrence. Anti-civil defense propaganda for nuclear disarmament politics is reducing not only deterrence but public safeguards against nuclear terrorism. Nuclear disarmament will put the clock back to the pre-nuclear era of conventional world wars. Nuclear safeguards and inspections will simply drive proliferation further underground, or risk war in themselves (just as 1930s efforts to oppose proliferation risked starting a war).

"If individuals feel they can do little about possible dangers, they have to flee from such threats by the use of denial. ... such individuals are not prepared to deal with the danger situation when it appears. ... In the early days of training for nuclear disaster, we stressed the number of casualties that even a nominal bomb could produce. Our listeners were alarmed, thinking, 'How could we care for a thousand burn cases when only four or five such cases demoralize our hospital?' The result of this approach was to lose our audiences."

– Albert J. Glass, MD, "Mass Psychology: the Determinants of Behavior under Emergency Conditions," Mass Burns: Proceedings of a Workshop, U.S. National Academy of Sciences, Washington, D.C. (linked here), pp. 11-20 (quotations from pages 13-14).

Exposed burned skin evaporates water at the rate of 10 litres/m²/day, which dries out and cools the body temperature, and this water evaporation rate is the actual physical mechanism behind the well-known dehydration, hypothermia, and shock in serious burns victims. The exposed burned skin also offers direct entry to the body tissues for bacterial infections (sepsis) which overwhelm the immune system and in combination with lowered temperature due to evaporation, escalate to pulmonary complications, and also allow direct contamination with radioactive fallout particles after a nuclear attack. Because severely burned victims reject food, they soon lose the energy needed to recover due to the cooling from water evaporation from the burned areas. At Hiroshima nothing was done to address the causal mechanism for burns mortality, instead efforts were made to treat dehydration by providing more fluids and antibiotics for infection. Reversing this whole approach, in order to actually prevent the underlying causes of these secondary effects in an emergency situation (nuclear attack), it has been found that simply covering exposed severe burns wounds with plastic film has been proved to avoid or reduce the immense evaporation of water which actually causes all of these immediate dehydration, shock, and hypothermia effects, and also much of the infection and contamination danger in the first place.

See Carl Jelenko, III, MD, "The Burn Surface as a Parasite: Water Loss, Caloric Demands, and Therapeutic Implications" and E. J. L. Lowbury, "The Prevention of Sepsis in Burns" (which shows in table 2 that 70% mortality from infected burns is reduced to 5% mortality if the burns are not infected) in Mass Burns: Proceedings of a Workshop, U.S. National Academy of Sciences, Washington, D.C. (linked here).

Think Plastic Wrap as Wound Dressing for Thermal Burns

ACEP (American College of Emergency Physicians) News

August 2008

By Patrice Wendling

Elsevier Global Medical News

CHICAGO - Ordinary household plastic wrap makes an excellent, biologically safe wound dressing for patients with thermal burns en route to the emergency department or burn unit. The Burn Treatment Center at the University of Iowa Hospitals and Clinics, Iowa City, has advocated prehospital and first-aid use of ordinary plastic wrap or cling film on burn wounds for almost two decades with very positive results, Edwin Clopton, a paramedic and ED technician, explained during a poster session at the annual meeting of the American Burn Association. "Virtually every ambulance in Iowa has a roll of plastic wrap in the back," Mr. Clopton said in an interview. "We just wanted to get the word out about the success we've had using plastic wrap for burn wounds," he said. Dr. G. Patrick Kealey, newly appointed ABA president and director of emergency general surgery at the University of Iowa Hospital and Clinics, said in an interview that plastic wrap reduces pain, wound contamination, and fluid losses. Furthermore, it's inexpensive, widely available, nontoxic, and transparent, which allows for wound monitoring without dressing removal. "I can't recall a single incident of it causing trouble for the patients," Dr. Kealey said.

Professor Eugene P. Wigner, "Why Civil Defense: A consideration of its effects if war comes, if not, and on the likelihood of nuclear war", *The Technology Review*, v66 (1964), no. 8, pp. 21-23:

"No one, least of all the soldier, thought it ill-fitting or cowardly to seek protection ... rather than to meet enemy shells fatally in the open. ... Let us assume, for example, that the United States and the Soviet Union reach some accord on gradual disarmament, and that many weapons and missiles are destroyed. ... If some small country, ruled by a dictator, built or otherwise acquired a few megaton-size weapons, its ruler might be tempted to threaten the U.S. with a few bombs with primitive delivery systems, such as mined merchant ships or concealed bombs in cities, to gain a free hand in his part of the world. ... It often has been said that the protection of our population might make our leaders more aggressive ... The absence of civil defense also could generate aggressiveness in leaders aware of the advantages of striking the first blow."

'Restricted' classified U.K. Home Office Scientific Adviser's Branch journal *Fission Fragments*, W. F. Greenhalgh, Editor, London, Issue Number 3, August 1962, pages 22-26:

'The fire hazard from nuclear weapons'

'by G. R. Stanbury, BSc, ARCS, F.Inst.P.

'We have often been accused of underestimating the fire situation from nuclear attack. We hope to show that there is good scientific justification for the assessments we have made, and we are unrepentant in spite of the television utterances of renowned academic scientists who know little about fire. ...

'Firstly ... the collapse of buildings would snuff out any incipient fires. Air cannot get into a pile of rubble, 80% of which is incombustible anyway. This is not just guess work; it is the result of a very complete study of some 1,600 flying bomb [V1 cruise missile] incidents in London supported by a wealth of experience gained generally in the last war.

'Secondly, there is a considerable degree of shielding of one building by another in general.

'Thirdly, even when the windows of a building can "see" the fireball, and something inside is ignited, it by no means follows that a continuing and destructive fire will develop.

'The effect of shielding in a built-up area was strikingly demonstrated by the firemen of Birmingham about 10 years ago with a 144:1 scale model of a sector of their city which they built themselves; when they put a powerful lamp in the appropriate position for an air burst they found that over 50% of the buildings were completely shielded. More recently a similar study was made in Liverpool over a much larger area, not with a model, but using the very detailed information provided by fire insurance maps. The result was similar.

'It is not so easy to assess the chance of a continuing fire. A window of two square metres would let in about 105 calories at the 5 cal/cm² range. The heat liberated by one magnesium incendiary bomb is 30 times this and even with the incendiary bomb [which burns for 15 minutes, not the few seconds or less for a nuclear flash] the chance of a continuing fire developing in a small room is only 1 in 5; in a large room it is very much less.

'Thus even if thermal radiation does fall on easily inflammable material which ignites, the chance of a continuing fire developing is still quite small. In the Birmingham and Liverpool studies, where the most generous values of fire-starting chances were used, the fraction of buildings set on fire was rarely higher than 1 in 20.

'And this is the basis of the assertion [in Nuclear Weapons] that we do not think that fire storms are likely to be started in British cities by nuclear explosions, because in each of the five raids in which fire storms occurred (four on Germany - Hamburg, Darmstadt, Kassel, Wuppertal and a "possible" in Dresden, plus Hiroshima in Japan - it may be significant that all these towns had a period of hot dry weather before the raid) the initial fire density was much nearer 1 in 2. Take Hamburg for example:

'On the night of 27/28th July 1943, by some extraordinary chance, 190 tons of bombs were dropped into one square mile of Hamburg. This square mile contained 6,000 buildings, many of which were [multistorey wooden] medieval.

'A density of greater than 70 tons/sq. mile had not been achieved before even in some of the major fire raids, and was only exceeded on a few occasions subsequently. The effect of these bombs is best shown in the following diagram, each step of which is based on sound trials and operational experience of the weapons concerned.

'102 tons of high explosive bombs dropped; 100 fires

'88 tons of incendiary bombs dropped, of which:

'48 tons of 4 pound magnesium bombs = 27,000 bombs; 8,000 hit buildings; 1,600 fires

'40 tons of 30 pound gel bombs = 3,000 bombs; 900 hit buildings; 800 fires

'Total = 2,500 fires

'Thus almost every other building [1 in 2 buildings] was set on fire during the raid itself, and when this happens it seems that nothing can prevent the fires from joining together, engulfing the whole area and producing a fire storm (over Hamburg the column of smoke, observed from aircraft, was 1.5 miles in diameter at its base and 13,000 feet high; eyewitnesses on the ground reported that trees were uprooted by the inrushing air). When the density was 70 tons/square mile or less the proportion of buildings fired during the raid was about 1 in 8 or less and under these circumstances, although extensive areas were burned out, the situation was controlled, escape routes were kept open and there was no fire storm.'

Modern buildings in modern cities do not suffer firestorms. General Curtis E. LeMay writes:

"The only way to win a war is to escalate it one way or another above what the enemy can endure. If we feel that we cannot win without unacceptable risk we have no business fighting in the first place.

"There are just two checks on escalation. One is the waning of motivation for fighting the war in the first place. A long grinding war of attrition on the ground might achieve this ... The second check on escalation is to so overwhelm your enemy with such heavy and rapid destruction that he loses all hope of winning. Then surrender is an attractive choice when compared to inevitable defeat or certain death. This, of course, is the way we brought Japan to terms in 1945. It was unnecessary to invade with infantry and fight a ground war. We seem to have forgotten this fact. Even though Japan had four million troops under arms with two million guarding her shores, not a shot was fired. We invaded with fourteen hundred military administrators, by air. Not a life was lost in this invasion.

"The Japanese had been highly motivated to wage war against us. Kamikaze tactics and no-surrender policies were typical. Yet a realization that Japan simply could not win and the certainty that continued resistance meant mounting devastation caused her to toss in the sponge. ... In the final analysis, hundreds of thousands of lives were saved and dozens of cities spared ... In Korea ... there were three and a half million military casualties on both sides during three years of drawn-out war. Over a million civilians were killed ..."

- General Curtis E. LeMay, *America is in Danger*, pages 307-9.

General Curtis Emerson LeMay (1906-90) developed and led the B-17 and B-24 incendiary bombing missions first in Europe and then B-29 missions in the Pacific during World War II, including control of incendiary raids and the two nuclear attacks. In the Cold War he headed the Berlin airlift of 1948, was the founder of SAC (the Strategic Air Command), and from 1961-5 was Chief of Staff of the USAF, retiring after arguments with Defense Secretary Robert McNamara over the Vietnam War. LeMay advised declaring war on North Vietnam (which McNamara refused to do) and the escalatory winning tactics that had proved successful against Japan without requiring a ground invasion of Japan in 1945. McNamara instead initially used the failing flexible response efforts to try to encourage negotiation with the least possible force, and later a gradual rather than overwhelming vertical escalation which simply resulted in media criticism for the killing of civilians with no positive result. While LeMay requested the bombing of North Vietnam harbors, but McNamara preferred to leave them untouched and bomb insurgent camps and supply routes within Vietnam, claiming that LeMay's scheme would kill Soviet Union advisers in supply ships in the harbors of North Vietnam, escalating the war horizontally, destabilizing Europe.

General Curtis E. LeMay's 5 June 1968 book *America is in Danger* (Funk and Wagnalls, New York) is still valid today, and it predicted on page 307 that America was going to lose in Vietnam, if McNamara's graduated response war policy continued. The book jacket clearly summarizes LeMay's case: "America is in danger. ... We find ourselves in a purely defensive role, unable to make our will felt even in a conflict with a backward jungle country. ... Our strategic nuclear superiority has given us much diplomatic strength in the past. Do we still have that strength? ... I think not. That is why America is in grave danger. ... Assessing the strategic situation, General LeMay argues that our former policy of overwhelming nuclear superiority proved itself during the crises in Berlin, Taiwan, and Cuba, and produced twenty years of relative peace. Yet the current Administration has opted for a new and untested posture that permits, even encourages parity with Russia."

On pages viii-ix LeMay explains that the worst wars are caused by dogmatic censorship in democracy:

"The equivocal manner in which we are waging the war in Southeast Asia [Vietnam] is a direct result of the bankrupt nature of a deterrent policy. ... 'defense intellectuals' go unchallenged simply because the experienced professional active duty officers are officially prohibited from entering into public debate. ... In 1916 while war in Europe was raging, President Woodrow Wilson banished from Washington a few officers at the Army War College who had the temerity to plan for war. ... I. S. Block, 'proved'

statistically in a popular book *The Future of War*, and in numerous speeches, that war was an economic impossibility [Norman Angell's *Great Illusion* in 1908 deluded Britain into viewing war as economically absurd, but was still awarded a Knighthood and a Nobel Peace Prize after WWI, since facts are always distorted to fit in to a hardened ideology]. His disciples (among whom was David Starr Jordan) were still plugging this doctrine in America in the face of the Battles of the Marne and the Somme.

"Just a few months before Sarajevo in 1914, David Starr Jordan, President of Stanford University and a renowned naturalist, said, 'It is apparently not possible for another real war among the nations of Europe to take place.' ... Before World War II the military profession was again pre-empted by the 'defense intellectuals.' ... The Kellogg-Briand Pact of 1928 had outlawed law in principle. The Washington Disarmament conferences of the 1930s, if not arriving at a treaty had at least condemned 'offensive' weapons. ... There was no one who could tell America that wars cannot be won with defensive weapons. ... In the Army Air Corps we developed the B-17 Flying Fortress almost clandestinely. ... Thirteen were ordered in 1937 and with them we worked out the tactics and strategies which carried the war to Germany and Japan ..."

On pages xiii-xiv, LeMay points out that in any war, be it Japan or Vietnam, there is no certain quantitative prediction possible of the effect of weapons on the will of the enemy to resist or surrender, and this factor must be either omitted or faked in all computer "predictions":

"We computerized every activity susceptible to machine analysis long before most businesses or other government agencies ... What we did not do was to force non-quantifiable data into a quantified mold in order to feed it to the machines. ... when defense intellectuals attempt, in deadpan seriousness, to quantify the effect that x number of casualties will have on the government or the will to resist, they are entering the Land of Oz. Some countries have succumbed, as France did in 1940, with minor casualties. Carthage and Paraguay (in 1870) show that other countries never give up, no matter what the casualties. ... Such unknowns in the strategic equation are anathema to the quantifier."

LeMay elaborates this on page 77:

"An enraged country may go to war against impossible odds, with no logical change of victory. This is another example of weakness in the concept of deterrence – the possibility of the illogical reaction. Thus did Paraguay fight against an overwhelming alliance of Brazil, Argentina, and Uruguay in 1864. So did little Serbia stand up to the great Austria-Hungarian Empire in 1914. And thus did England and France declare war on Germany in 1939 ... Almost any country can be pushed too far, as was Hungary in 1956. It then feels compelled to fight regardless of the consequences. Patrick Henry's remark 'give me liberty or give me death' is not an isolated human decision."

LeMay's points out that Defense Secretary McNamara's failure in the Vietnam War was due to the abuse of science, in fiddling computer model assumptions about the political response to the enemy to military coercion. LeMay on page 89 shows that this failure of analysis in Vietnam also applies to general nuclear war deterrence planning, e.g. McNamara's 1967 Posture Statement: "To deter deliberate nuclear attack upon the United States ... ability to inflict an unacceptable degree of damage ..." Here the word "unacceptable" is a subjective function of the emotional state of mind of the enemy.

Anti-nuclear war propaganda like Kubrick's pseudoscience film *Dr Strangelove* is attributed by LeMay on pages 8-12 to ideologues (the pseudo-pacifists, the pseudo-moralistic crusaders, and the well-meaning media whose lying "anti-war" propaganda lay behind previous wars):

"This large peace-time military establishment has allowed many scaremongers to capitalize on the traditional anti-military American attitudes and thus sell books and movies. ... It is like yelling fire in a crowded theatre. Some ... is encouraged by our enemies to weaken faith in our military leadership and thus to undermine our resolve or capability for self-defense. Some of it, of course, is a perfectly legitimate concern over how a large, perpetual military establishment will change our system of values, society, and government. ... One must keep in mind the communist technique of 'boring from within.' ... History illustrates that the first act of a dictator is to distort and suppress the news. Free speech and press permit the truth to be aired and opposing opinions to be expressed. ... The world is moving too fast today, particularly in technology, for us to be tied to a monolithic organization which stifles all thought outside its own party line of hackneyed solutions. ... One of the greatest dangers in a military estimate of any situation is to believe, through party-line strategic concepts, that you know what the enemy will or will not do. We knew that Japan would not attack Pearl Harbor, our best-defended outpost. ... We knew that the Soviet Union would not put nuclear intermediate range ballistic missiles in Cuba. ... We must – but do not – have a defense organization which permits controversy, which permits the 'unthinkable' condition to be debated freely, which permits the screwball idea to come forth, and which tolerates the maverick officer. The Andrew Jacksons, the Zachary Taylors, the Ulysses S. Grants, the George Deweys, the Alfred Thayer Mahans, the Billy Mitchells, are not nurtured in orthodoxy. They are not products of a party line."

In a chapter on the "Proliferation of Nuclear Weapons" LeMay explains on page 204 that although "Every large war, of course, is sparked by some relatively minor event, as the murder at Sarajevo in 1914 or the Nazi march into Poland in 1939", ignition sparks are not the fuel. The straw that breaks the camel's back is not the sole or even the major problem:

"The small countries of Austria, Czechoslovakia, or Poland most certainly cannot be accused of 'catalytic' behavior during these tense times. Should Poland have succumbed for the sake of world peace? The small country argument is sometimes related to the 'statistical' theory. As more countries get the bomb, goes the reasoning, something is likely to happen that will cause a bomb to go off. ... This fear should be laid to rest. The number of nuclear bombs and warheads have already proliferated to the thousands and the first accidental nuclear explosion has yet to occur. ... For example, on December 8, 1964, a B-58 Hustler bomber with a 'nuclear device' in its bomb bay caught fire at Bunker Hill Air Force Base, Indiana ... no radioactive contamination occurred. Of the four bombs dropped from a B-52 off Palomares, Spain, as a result of a refueling collision in 1966 ... there was some relatively harmless contamination caused by two which broke up. A nuclear bomb is a highly complicated device and many sequential steps must be taken to light it off. ... At worse, the chemical high explosive components of a bomb might detonate from fire and scatter some nuclear material which could cause a small area to become mildly and harmlessly radioactive, as in Spain. Nothing of this sort is liable to lead to a nuclear war."

On pages 242-260, in his chapter on "Counterinsurgency and the War in Vietnam", LeMay points out:

"It is a war waged simultaneously on many fronts and in many forms. It is a cold war and a hot war, and economic war and a political war, a propaganda war and an ideological war. It is waged by the communists according to their own timetable and on battlefields of their choosing. ... By 1965 we were bombing North Vietnam and landing combat troops to engage with the Viet Cong. Yet the South Vietnamese army was shot with desertions and down to one-third strength. Equipment worth millions of dollars from the United States was finding its way into Viet Cong hands. ... It is a war of flexible response not designed to win but rather to punish, and to punish only enough to bring the Hanoi government to the conference table. ... It is a war where our powerful Navy allows foreign ships to supply the enemy with war materials. ... It is a war where we allow the one principal harbor – the harbor through which the large majority of enemy supplies must flow – to remain undamaged. ... This is the war of flexible response and graduated deterrence applied for the first time. This is the war concocted by the arms controllers of the Kennedy-Johnson Administrations to prevent, they believed, the feared nuclear holocaust. The consequences of such a cruel non-war will be heartache, frustration, and death, rather than a reasonable political settlement. We must change our strategy. ...

"The long, drawn-out conflict has created dissension, disillusion, and dispute in America. It has seemed to foster a greater sense of determination and purpose in North Vietnam. ... Oriental stoicism and patience make North Vietnam willing to extend the struggle from generation to generation, or so they say, to have a 'protracted war'. ... we are fighting with the commodity most precious to us ... the lives of men. And what is our objective? To negotiate. ... Our continued pleas for peace and talks can only leave an impression of irresolution, which encourages North Vietnamese resistance. ... we dribbled in reinforcements, taking one half-measure after another in the 'graduated' manner of flexible response, pursuing a peculiar strategy which said, in effect, 'Fight the enemy on his own terms.' ... we must fight the war from our position of strength, not theirs. We must fight it at the lowest cost to ourselves and at the greatest cost to the enemy. ... Probably the weirdest aspect of this Alice-in-Wonderland war is that we have dropped more explosive on Vietnam than we did on Germany in World War II. ... It is not air power that is wanting. It is the wrong employment of air power. ... The sanctuary we have granted to the port of Haiphong is one of the strangest anomalies in the history of warfare. During the past two years 827 ships have brought munitions and supplies to North Vietnam. Of these ships, 267 were Russian, 258 were Red Chinese, 94 were from Eastern European countries, and 210 were ships of our alleged allies and foreign air recipients. ... There are so many ways we could close that port! We could blockade it. We could bomb it to rubble. We could mine it. We could sink a ship in the entrance channel."

The American gradual response doctrine in Vietnam backfired and built up resistance and hardness in North Vietnam. When finally the bombing intensity was increased, the people were by then well accustomed to bombing and inured to bombing. Vietnam is the textbook example of what happens when you try to fight a politically correct war: not only do you lose militarily, but you also cause more destruction and suffering in the process of losing and then suffer more savage propaganda from the "peace" movement for having done so. In his chapter on "Limited War", LeMay explains how Einstein's equation can be used to intimidate an enemy thus actually preventing the usual massacre:

"Modern delivery systems make it possible to achieve great accuracy in placing weapons on target, and technology has made it possible to tailor the size of the nuclear yield to fit the situation [dial a yield]. The basic target system for nuclear weapons, as in all conflict, is the enemy's military capability ... The introduction of appropriate-sized nuclear weapons should insure an early termination of hostilities, reduce casualties among American and friendly forces, and limit, not expand, the amount of economic disruption and destruction ... As to the question of escalation to general nuclear war, it would seem that this is a matter which should concern the Communists more than it does the United States ... With United States superiority, the crossing of any threshold of escalation presents an outcome progressively worse for the Communists. Lacking a capability to fight and win a full-fledged war with the United States, they are obliged, in their own interests, to keep any war at a low level of intensity. ...

"The idea of controlled escalation is not valid when we are confronted by an irrational enemy. A country bent on suicide cannot be stopped short of that. ...

"1. Success in limited war is contingent upon maintaining a superior general war capability.

"2. Escalation must be feared most by the power with the weaker general war capability. ...

"Unless we start to win the wars we get into, we may find ourselves overextended around the world on several frontiers, fighting equivocal wars. To maintain such vast military forces America would become an armed camp with all our sons being drafted for these endless foreign wars. God forbid! The 1984 of George Orwell would be here. America could then offer little more to its citizens than communism does to its comrades."

In a chapter on "Military Superiority" at pages 273-309, LeMay explains that fashionable arms control and weapons parity is a dangerous policy because it encourages aggression and coercion by the enemy:

"The desire to reduce the huge expenditure for armed forces and armaments is universal. Measures to reduce the risk of war or its destructive nature are crucial matters to all. ... Why have physical scientists taken up arms control with such consummate zeal? Some scientists have suggested that there is a guilt complex at work. The physical scientists unleashed the horrible genie of nuclear energy and now they feel morally responsible for putting the genie back into the bottle. The Bulletin of the Atomic Scientists [which responded with a damning review of LeMay's book, written by Dr Ralph Lapp, ignoring the military lessons about war and quibbled about the yields of some Russian missiles] has beat this drum for almost two decades. Activists ... set out to change the national ethos by making nuclear war so horrible to contemplate that national defense with nuclear weapons would be considered immoral and unthinkable. ... This anti-nuclear movement is a highly charged, emotional 'cause' which has attracted many other groups. The peace organizations have joined with vim. Yet so have many able and well-intentioned politicians, diplomats, and businessmen. ... These are all people with a crusading zeal to do away with nuclear weapons and save the world from nuclear war. ... They conceive of nuclear weapons to be the greatest evil in the world, and this thought seems to becloud all judgement, knowledge, and sometimes even loyalties. ...

"The accidental war concept was popularly launched by the novel Red Alert [by Peter George in 1958, which was made into Stanley Kubrick's 1964 film Dr Strangelove, or How I Learned to Stop Worrying and Love the Bomb using cobalt bomb propaganda against LeMay, Kahn and Teller], a horror story describing a war started by a crazed SAC commander. ... Soon after the story was published in 1958, it was ordered that tactical pilots would be medically examined for possible mental abnormalities. The connection seems obvious. Fail-Safe by Burdick and Wheeler was a later thriller of similar plot. This impossible yarn related how a condenser blew in communications equipment, causing a bomber force to fly past its fail-safe point and attack Moscow. Such a ridiculously inaccurate story, deliberately twisting the whole concept of fail-safe which simply meant that if any part of the system failed the system was safe, was passed off by the authors as an authentic possibility, even a probability. Said the authors, 'it represents a competent estimate of the technical and scientific factors involved in the 'fail-safe' system. ...

"War is never 'cost-effective' in terms of dollars and blood. People are killed. To them the war is total. You cannot tell bereaved wives, children, and parents that today's war in Vietnam, for example, is a counter-insurgency exercise into which the United States is putting only a limited effort. Death is final, and drafted boys should not be asked to make this ultimate sacrifice unless the Government is behind them 100 percent. If we pull our punches how can we explain it to their loved ones? ... Our losses so far in Vietnam exceed those of the War of 1812, the Mexican War, and the Spanish-American War combined. Are we paying this price simply to help a friendly country stop outside aggression, or are we actually fighting expanding communism? ... we should never engage in a small war unless we are prepared to fight and win a large war. This is fundamental. ... The only way to win a war is to escalate it one way or another above what the enemy can endure. If we feel that we cannot win without unacceptable risk we have no business fighting in the first place.

"There are just two checks on escalation. One is the waning of motivation for fighting the war in the first place. A long grinding war of attrition on the ground might achieve this ... The second check on escalation is to so overwhelm your enemy with such heavy and rapid destruction that he loses all hope of winning. Then surrender is an attractive choice when compared to inevitable defeat or certain death. This, of course, is the way we brought Japan to terms in 1945. It was unnecessary to invade with infantry and fight a ground war. We seem to have forgotten this fact. Even though Japan had four million troops under arms with two million guarding her shores, not a shot was fired. We invaded with fourteen hundred military administrators, by air. Not a life was lost in this invasion.

"The Japanese had been highly motivated to wage war against us. Kamikaze tactics and no-surrender policies were typical. Yet a realization that Japan simply could not win and the certainty that continued resistance meant mounting devastation caused her to toss in the sponge. ... In the final analysis, hundreds of thousands of lives were saved and dozens of cities spared ... In Korea ... there were three and a half million military casualties on both sides during three years of drawn-out war. Over a million civilians were killed ..."

On pages 104-5, LeMay recommends ABM, pointing out that enemy nuclear missile warheads are vulnerable to initial nuclear radiation and X-ray ablation extending over immense distances in the vacuum of space by a defensive nuclear explosion, so they are shot down without having to "hit a bullet with a bullet".

On page 106, LeMay points out that on 10 November 1966 Defense Secretary McNamara publicly admitted that Russia was employing these ABM systems around Moscow and Leningrad. The three 300 kt Russian Operation K nuclear tests at altitudes of 290, 150 and 59 km on 22 and 28 October and 1 November 1962, respectively, were ABM

system proof tests. Unlike American high altitude nuclear tests (where EMP damage on Hawaii was discovered purely by accident), Russia specifically instrumented burned power transmission lines and telephone lines for EMP damage research before setting off these nuclear tests. Russian unveiled its Griffon ABM in 1963 and "The Galosh ABM was displayed in a Moscow parade in November, 1964."

Despite this proof-tested Russian ABM accomplishment which would have shot down rogue nuclear missiles falling on Moscow, America never protected its cities by ABM systems. Civil defense is also derided in democracies by utopian ideologies who are rewarded Nobel Peace Prizes for censoring out the facts.

Executive Office of the President, National Security Resources Board, NSRB Doc. 132, Fire Effects of Bombing Attacks, August 1951, pages 8 and 24:

"The central portions of German cities had a building density (the ratio of roof area to ground area) of approximately 40% and made excellent targets for incendiary attack. ... The average German city contained at its core a medieval town which was closely built up with narrow and winding streets. ... in Hiroshima ... Black cotton [air raid] black out curtains were ignited by radiant heat within 3,200 feet ... A large proportion of over 1,000 persons questioned were in agreement that a great majority of the original fires were started by debris falling on kitchen charcoal fires, by industrial process fires, or by electrical short circuits [in the era before any modern efficient electrical circuit breakers, or fire sprinklers]."

In Nagasaki, 50% were killed from all causes (blast and various radiations) in wood-frame houses at 15.6 psi peak overpressure, compared to 55 psi for those in underground shelters. Source: L. Wayne Davis, "Prediction of Urban Casualties and the Medical Load from a High-Yield Nuclear Burst" (based on over 35,000 Hiroshima and Nagasaki case histories), Dirkwod Corporation paper DC-P-1060. By contrast, the widely circulated 1979 U. S. Office of Technology Assessment report, "The Effects of Nuclear War", assumes that just 5-6 psi produces 50% mortality (the computer model this estimate is from ignores floor resistance, like an ice-skating rink in multistory buildings, thus assuming that the blast blows people out of high-rise buildings to be killed by gravity in the fall to the ground), compared to over 15 psi for people indoors at Nagasaki (people indoors were largely protected from blast-duration dependent wind drag effects, and longer duration blast reduces the vertically falling debris load on survivors by blowing debris horizontally, often reducing rather than increasing the overall hazard). Table 5 in the 1979 report "arbitrarily" assumes that 6.7 cal/sq. cm is lethal to people outdoors, whereas the Dirkwod report shows that 16 cal/sq. cm was lethal to 50% of personnel exposed outdoors in thin summer clothing in Hiroshima, and larger amounts are required for higher weapon yields.

Clothing and shadows from buildings, trees, fences, and vehicles offered substantial protection. Even the 1946 unclassified short U. S. Strategic Bombing Survey report on Hiroshima and Nagasaki documented how *people were able to roll and beat out ignited dark colored clothing at very high thermal exposures, usually without sustaining serious burns*. Once people are protected against the radiation, flying debris and wind drag by taking cover, Glasstone and Dolan's 1977 "Effects of Nuclear Weapons" shows in Table 12.38 that an effective peak overpressure of 62 psi is required for 50% lethality from blast effects. Their Table 12.43 shows that the average mass of flying glass fragments decreases with increasing overpressure, from 1.45 grams at 1.9 psi to 0.13 grams at 5.0 psi, making protection against high velocity flying glass splinters and other debris possible.

M. K. Drake, et al., "Collateral Damage", Science Applications, Inc., Defense Nuclear Agency report DNA 4734Z, ADA071371, 1978, page 5-86:

"For personnel inside structures, the probability of being hit by glass fragments decreases rapidly as a person moves laterally from behind a window. At 25 degrees from the edge of a window pane, the density of glass fragments is approximately one-tenth the density of fragments measured directly behind the window. ... This was extremely evident in injuries of British civilians during World War II. As the people learned to quit looking out of their windows during bomb raids, the number of glass casualties decreased dramatically."

Like lightning before thunder, the painfully bright first flash of a nuclear explosion arrives ahead of the slower blast wave, proving a useful warning to duck and cover over large areas of destruction.

Fallout consists of small particles which take time to arrive, allowing evacuation or improvised radiation shielding. Fallout predictions only failed during early 1950s tests due to inadequate knowledge of the fallout mechanism and inadequate weather predictions. Modern city buildings with modern fire-resistant furnishings are even less prone to ignition than black air-raid blackout curtains in wartime Hiroshima, which generally failed to start sustained fires.

The Hiroshima firestorm was caused by thousands of overturned charcoal stoves in paper screen filled congested wooden housing areas, so overcrowded they were a peacetime fire risk, according to the U. S. Strategic Bombing Survey report. With no firestorms, there can be no nuclear winter. In Hiroshima, where there was a firestorm, sunshine was blocked out for 25 minutes as proved by the Hiroshima meteorological sunshine recorder data.

Dr Samuel Glasstone, "The Effects of Nuclear Weapons," 1962/4, page 631:

"... of approximately 3,000 school students who were in the open and unshielded within a mile of ground zero at Hiroshima, about 90 percent were dead or missing after the explosion. But of nearly 5,000 students in the same zone who were shielded in one way or another, only 26 percent were fatalities. ... survival in Hiroshima was possible in buildings at such distances that the overpressure in the open was 15 to 20 pounds per square inch. ... it is evident ... that the area over which protection could be effective in saving lives is roughly eight to ten times as great as that in which the chances of survival are small."

Further data: <http://glasstone.blogspot.co.uk/2013/08/secret-british-wwii-data-dr-d-g.html> and http://glasstone.blogspot.co.uk/2013_10_01_archive.html

Update (28 March 2014): a great welcome to visitors from **Ukraine** to his blog as shown in recent and longer term visitor statistics (below). Please don't trust EU/UK/USA, so instead get your own nuclear weapons (preferably tank deterring neutron bombs, blueprints available unofficially from the Pentagon/AWE Altermaston/NATO) to deter the temptations of Putin the Great. This is because we don't have enough nuclear bombs - thanks to CND-EU Cathy "disarmer" Ashton - to deter our own little islands from Moscow, let alone a likely WWII alliance of Russia/China/Iran/North Korea. На здоровье!

Entry	Pageviews	Entry	Pageviews	Entry	Pageviews
United States	2340	United States	279142	Windows	483113 (81%)
Ukraine	881	United Kingdom	48528	Macintosh	56612 (9%)
France	348	Germany	23713	Linux	24903 (4%)
United Kingdom	279	France	16115	iPad	7548 (1%)
Germany	112	India	15399	iPhone	6778 (1%)
Canada	105	Canada	14160	Other Unix	6046 (1%)
Russia	87	Russia	12775		
Poland	78	Ukraine	5952		
China	75	Australia	4316		
Sweden	38	Sweden	3336		

posted by nige @ 8:18 am 13 comments



Civil defense countermeasures, to be taken seriously by the population, require the publication of solid facts with the scientific evidence to support those facts against

political propaganda to the contrary. Secrecy over the effects of nuclear weapons tests does not hinder plutonium and missile production by rogue states, but it does hinder civil defense countermeasures, by permitting lying political propaganda to go unopposed.

Terrorists successfully prey on the vulnerable. The political spreading of lies concerning threats and the alleged 'impossibility' of all countermeasures, terrorizing the population in order to 'justify' supposedly pro-peace disarmament policies in the 1920s-1930s, resulted in the secret rearmament of fascist states which were terrorizing the Jews and others, eventually leading to World War II.

Lying exaggerations today about nuclear weapons effects:

(1) encourage terrorist states and other groups to secretly invest in such weapons to use either for political intimidation or for future use against countries which have no countermeasures, and

(2) falsely dismiss, in the eyes of the media and the public, cheap relatively effective countermeasures like civil defense and ABM.

Therefore, doom-mongering media lies *make us vulnerable to the proliferation threat* today in two ways, just as they led to both world wars:

(1) Exaggerations of offensive technology and a down-playing

of simple countermeasures such as trenches, encouraged belligerent states to start World War I in the false belief that modern technology implied overwhelming firepower which would terminate the war quickly on the basis of offensive preparedness: if the facts about simple trench countermeasures against shelling and machine guns during the American Civil War had been properly understood, it would have been recognised by Germany that a long war based on munitions production and logistics would be necessary, and war would have been seen to be likely to lead to German defeat against countries with larger overseas allies and colonies that could supply munitions and the other resources required to win a long war.

(2) Exaggerations of aerial bombardment technology after World War I led to disarmament 'supported by' false claims that it was impossible to have any defense against a perceived threat of instant annihilation from thousands of aircraft carrying gas and incendiary bombs, encouraging fascists to secretly rearm in order to successfully take advantage of the fear and vulnerability caused by this lying political disarmament propaganda.

Historically, it has been proved that having weapons is not enough to guarantee a reasonable measure of safety from terrorism and rogue states; countermeasures are

also needed, both to make any deterrent credible and to negate or at least mitigate the effects of a terrorist attack. Some people who wear seatbelts die in car crashes; some people who are taken to hospital in ambulances, even in peace-time, die. Sometimes, lifebelts and lifeboats cannot save lives at sea. This lack of a 100% success rate in saving lives doesn't disprove the value of everyday precautions or of hospitals and medicine. Hospitals don't lull motorists into a false sense of security, causing them to drive faster and cause more accidents. Like-minded 'arguments' against ABM and civil defense are similarly vacuous.

'As long as the threat from Iran persists, we will go forward with a missile system that is cost-effective and proven. If the Iranian threat is eliminated, we will have a stronger basis for security, and the driving force for missile-defense construction in Europe will be removed.'

- President Obama, Prague Castle, Czech Republic, 4 April 2009.

Before 9/11, Caspar Weinberger was quizzed by skeptical critics on the BBC News program *Talking Point*, Friday, May 4, 2001: *Caspar Weinberger quizzed on new US Star Wars ABM plans:*

'The [ABM] treaty was in 1972 ... The theory ... supporting the ABM treaty [which prohibits ABM, thus making nations vulnerable to terrorism] ... that it will prevent an arms race ... is perfect nonsense

because we have had an arms race all the time we have had the ABM treaty, and we have seen the greatest increase in proliferation of nuclear weapons that we have ever had. ... So the ABM treaty preventing an arms race is total nonsense. ...

'You have to understand that without any defences whatever you are very vulnerable. **It is like saying we don't like chemical warfare - we don't like gas attacks - so we are going to give up and promise not to have any defences ever against them and that of course would mean then we are perfectly safe. ...**

'The Patriot was not a failure in the Gulf War - the Patriot was one of the things which defeated the Scud and in effect helped us win the Gulf War. One or two of the shots went astray but that is true of every weapon system that has ever been invented. ...

'The fact that a missile defence system wouldn't necessarily block a suitcase bomb is certainly not an argument for not proceeding with a missile defence when a missile that hits can wipe out hundreds of thousands of lives in a second. ...

'The **curious thing about it is that missile defence is not an offensive weapon system - missile defence cannot kill anybody. Missile defence can help preserve and protect your people and our allies, and the idea that you are somehow endangering people by having a defence strikes me almost as absurd as saying you endanger**

people by having a gas mask
in a gas attack. ...

'President Bush said that we were going ahead with the defensive system but we would make sure that nobody felt we had offensive intentions because we would accompany it by a unilateral reduction of our nuclear arsenal. It seems to me to be a rather clear statement that proceeding with the missile defence system would mean fewer arms of this kind.

'You have had your arms race all the time that the ABM treaty was in effect and now you have an enormous accumulation and increase of nuclear weapons and that was your arms race promoted by the ABM treaty. Now if you abolish the ABM treaty you are not going to get another arms race - *you have got the arms already there* - and if you accompany the missile defence construction with the unilateral reduction of our own nuclear arsenal then it seems to me you are finally getting some kind of inducement to reduce these weapons.'

Before the ABM system is in place, and afterwards if ABM fails to be 100% effective in an attack, or is bypassed by terrorists using a bomb in a suitcase or in a ship, civil defense is required and can be effective at saving lives:

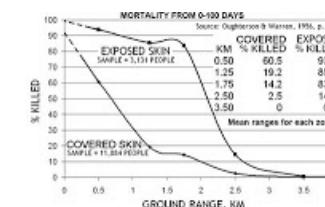
'Paradoxically, the more damaging the effect, that is the farther out its lethality stretches, the more can be done about it, because in the last fall of its power it covers vast areas, where small mitigations will save very large numbers of people.'

- Peter Laurie, *Beneath the City*

Streets: A Private Inquiry into the Nuclear Preoccupations of Government, Penguin, 1974.

'The purpose of a book is to save people [the] time and effort of digging things out for themselves. ... we have tried to leave the reader with something tangible – what a certain number of calories, roentgens, etc., means in terms of an effect on the human being. ... we must think of the people we are writing for.'

– Dr **Samuel Glasstone**, DSc, letter dated 1 February 1957 to Colonel Dent L. Lay, Chief, Weapons Effects Division, U.S. Armed Forces Special Weapons Project, Washington, D.C., pages 2 and 4, concerning the preparation of *The Effects of Nuclear Weapons*.



Glasstone and Dolan stated in *The Effects of Nuclear Weapons* (1977), Table 12.17 on page 546, that the median distance in Hiroshima for survival after 20 days was 0.12 miles for people in concrete buildings and 1.3 miles for people standing outdoors. Therefore the median distances for survival in modern city buildings and in the open differed by a factor of 11 for Hiroshima; the difference in areas was thus a factor of 11^2 or about 120. Hence, taking cover in modern city buildings reduces the casualty rates and

the risks of being killed by a factor of 120 for Hiroshima conditions, contrary to popular media presented political propaganda that civil defence is hopeless. This would reduce 120,000 casualties to 1,000 casualties.

From Dr Glasstone's *Effects of Nuclear Weapons* (1962/64 ed., page 631): 'At distances between 0.3 and 0.4 mile from ground zero in Hiroshima the average survival rate, for at least 20 days after the nuclear explosion, was less than 20 percent. Yet in two reinforced concrete office buildings, at these distances, almost 90 percent of the nearly 800 occupants survived more than 20 days, although some died later of radiation injury. Furthermore, of approximately 3,000 school students who were in the open and unshielded within a mile of ground zero at Hiroshima, about 90 percent were dead or missing after the explosion. But of nearly 5,000 students in the same zone who were shielded in one way or another, only 26 percent were fatalities. ... survival in Hiroshima was possible in buildings at such distances that the overpressure in the open was 15 to 20 pounds per square inch. ... it is evident ... that the area over which protection could be effective in saving lives is roughly eight to ten times as great as that in which the chances of survival are small.'

Lord Mayhew, House of Lords
debate on Civil Defence
(General Local Authority

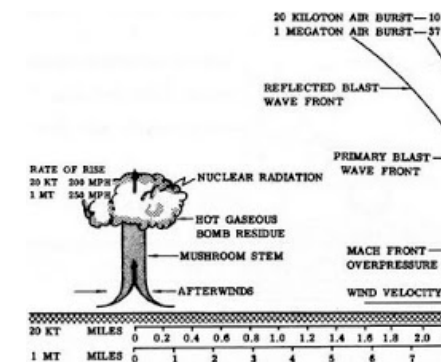
Functions) Regulations, Hansard, vol. 444, cc. 523-49, 1 November 1983: '... if there had been effective civil defence at Hiroshima probably thousands of lives would have been saved and much human suffering would have been avoided. There is no question about it. ...'

Since the 1977 update by Glasstone and Dolan, extensive new updates to EM-1 for a further revised edition of *The Effects of Nuclear Weapons* have not actually been published with unlimited public distribution, due to President Carter's 1979 executive order which transferred responsibility for civil defense from the jurisdiction of the U.S. Department of Defense's Defense Civil Preparedness Agency to the new agency (which is not an Agency of the U.S. Department of Defense, and is not concerned with the analysis of nuclear weapons test effects data), the Federal Emergency Management Agency. However, the February 1997 U.S. Department of Defense's Defense Special Weapons Agency 0602715H RDT&E Budget Item Justification Sheet (R-2 Exhibit) states that a revision of Glasstone and Dolan's unclassified *Effects of Nuclear Weapons* was budgeted for 1997-9:

"FY 1997 Plans: ... Provide text to update Glasstone's book, *The Effects of Nuclear Weapons*, the standard reference for nuclear weapons effects. ... Update the unclassified textbook entitled, *The Effects of Nuclear Weapons*. ... Continue

revision of Glasstone's book, *The Effects of Nuclear Weapons*, the standard reference for nuclear weapons effects. ... FY1999 Plans ... Disseminate updated *The Effects of Nuclear Weapons*."

The new publications are either classified or unclassified with limited distribution restrictions (e.g., *Bridgman's Introduction to the Physics of Nuclear Weapons Effects*, which includes several chapters on nuclear weapons design to enable initial radiation outputs to be calculated precisely) which prevents up-to-date basic nuclear effects information to justify civil defense against the latest nuclear threats from being widely disseminated; the books are printed for use only by government agencies. The problem with this approach is that widespread public understanding of the best information for civil defense countermeasures is prevented.



'The evidence from Hiroshima indicates that blast survivors, both injured and uninjured, in buildings later consumed by fire [caused by the blast overturning charcoal braziers used for breakfast in

inflammable wooden houses filled with easily ignitable bamboo furnishings and paper screens] were generally able to move to safe areas following the explosion. Of 130 major buildings studied by the U.S. Strategic Bombing Survey ... 107 were ultimately burned out ... Of those suffering fire, about 20 percent were burning after the first half hour. The remainder were consumed by fire spread, some as late as 15 hours after the blast. This situation is not unlike the one our computer-based fire spread model described for Detroit.'

- Defense Civil Preparedness Agency, U.S. Department of Defense, *DCPA Attack Environment Manual, Chapter 3: What the Planner Needs to Know About Fire Ignition and Spread*, report CPG 2-1A3, June 1973, Panel 27.

'It is true that the Soviets have tested nuclear weapons of a yield higher than that which we thought necessary, but the 100-megaton bomb of which they spoke two years ago does not and will not change the balance of strategic power. The United States has chosen, deliberately, to concentrate on more mobile and more efficient weapons, with lower but entirely sufficient yield ...' - President John F. Kennedy in his television broadcast to the American public, 26 July 1963.

'During World War II many large cities in England, Germany, and Japan were subjected to terrific attacks by high-explosive and incendiary bombs. Yet, when proper steps had been taken for

the protection of the civilian population and for the restoration of services after the bombing, there was little, if any, evidence of panic. It is the purpose of this book to state the facts concerning the atomic bomb, and to make an objective, scientific analysis of these facts. It is hoped that as a result, although it may not be feasible completely to allay fear, it will at least be possible to avoid panic.'

– **Dr George Gamow (the big bang cosmologist)**, **Dr Samuel Glasstone**, DSc (Executive Editor of the book), and **Professor Joseph O. Hirschfelder**, *The Effects of Atomic Weapons*, Chapter 1, p. 1, Paragraph 1.3, U.S. Department of Defense, September 1950.

'The consequences of a multiweapon nuclear attack would certainly be grave ... Nevertheless, recovery should be possible if plans exist and are carried out to restore social order and to mitigate the economic disruption.'

- **Philip J. Dolan**, editor of *Nuclear Weapons Employment* FM 101-31 (1963), *Capabilities of Nuclear Weapons* DNA-EM-1 (1972), and *The Effects of Nuclear Weapons* (1977), Stanford Research Institute, Appendix A of the **U.S. National Council on Radiological protection (NCRP) symposium *The Control of Exposure to the Public of Ionising Radiation in the Event of Accident or Attack*, 1981.**

'Suppose the bomb dropped on Hiroshima had been 1,000 times as powerful ... It could not have killed 1,000 times as many people, but at most the entire

population of Hiroshima ...
 [regarding the hype about various
 nuclear "overkill" exaggerations]
 there is enough water in the
 oceans to drown everyone ten
 times.'

**- Professor Brian Martin, PhD
 (physics), 'The global health
 effects of nuclear war', *Current
 Affairs Bulletin*, Vol. 59, No. 7,
 December 1982, pp. 14-26.**

In 1996, half a century after the
 nuclear detonations, data on
 cancers from the Hiroshima and
 Nagasaki survivors was published
 by D. A. Pierce et al. of the
 Radiation Effects Research
 Foundation, RERF (*Radiation
 Research* vol. 146 pp. 1-27;
Science vol. 272, pp. 632-3) for
 86,572 survivors, of whom 60%
 had received bomb doses of over 5
 mSv (or 500 millirem in old units)
 suffering 4,741 cancers of which
 only 420 were due to radiation,
 consisting of 85 leukemias and
 335 solid cancers.

'Today we have a population of
 2,383 [radium dial painter] cases
 for whom we have reliable body
 content measurements. . . . All 64
 bone sarcoma [cancer] cases
 occurred in the 264 cases with
 more than 10 Gy [1,000 rads],
 while no sarcomas appeared in
 the 2,119 radium cases with less
 than 10 Gy.'

**- Dr Robert Rowland, Director
 of the Center for Human
 Radiobiology, *Bone Sarcoma in
 Humans Induced by Radium: A
 Threshold Response?*,
*Proceedings of the 27th Annual
 Meeting, European Society for
 Radiation Biology,
 Radioprotection colloquies,*
*Vol. 32CI (1997), pp. 331-8.***

Zbigniew Jaworowski,
 'Radiation Risk and Ethics:
 Health Hazards, Prevention
 Costs, and Radiophobia',
Physics Today, April 2000, pp.
 89-90:

'... it is important to note that, given the effects of a few seconds of irradiation at Hiroshima and Nagasaki in 1945, a threshold near 200 mSv may be expected for leukemia and some solid tumors. [Sources: UNSCEAR, *Sources and Effects of Ionizing Radiation*, New York, 1994; W. F. Heidenreich, et al., *Radiat. Environ. Biophys.*, vol. 36 (1999), p. 205; and B. L. Cohen, *Radiat. Res.*, vol. 149 (1998), p. 525.] For a protracted lifetime natural exposure, a threshold may be set at a level of several thousand millisieverts for malignancies, of 10 grays for radium-226 in bones, and probably about 1.5-2.0 Gy for lung cancer after x-ray and gamma irradiation. [Sources: G. Jaikrishan, et al., *Radiation Research*, vol. 152 (1999), p. S149 (for natural exposure); R. D. Evans, *Health Physics*, vol. 27 (1974), p. 497 (for radium-226); H. H. Rossi and M. Zaider, *Radiat. Environ. Biophys.*, vol. 36 (1997), p. 85 (for radiogenic lung cancer).] The hormetic effects, such as a decreased cancer incidence at low doses and increased longevity, may be used as a guide for estimating practical thresholds and for setting standards. ...

'Though about a hundred of the million daily spontaneous DNA damages per cell remain unrepaired or misrepaired, apoptosis, differentiation, necrosis, cell cycle regulation, intercellular interactions, and the

immune system remove about 99% of the altered cells. [Source: R. D. Stewart, *Radiation Research*, vol. 152 (1999), p. 101.]

...

'[Due to the Chernobyl nuclear accident in 1986] as of 1998 (according to UNSCEAR), a total of 1,791 thyroid cancers in children had been registered. About 93% of the youngsters have a prospect of full recovery. [Source: C. R. Moir and R. L. Telander, *Seminars in Pediatric Surgery*, vol. 3 (1994), p. 182.] ... The highest average thyroid doses in children (177 mGy) were accumulated in the Gomel region of Belarus. The highest incidence of thyroid cancer (17.9 cases per 100,000 children) occurred there in 1995, which means that the rate had increased by a factor of about 25 since 1987.

'This rate increase was probably a result of improved screening [not radiation!]. Even then, the incidence rate for occult thyroid cancers was still a thousand times lower than it was for occult thyroid cancers in nonexposed populations (in the US, for example, the rate is 13,000 per 100,000 persons, and in Finland it is 35,600 per 100,000 persons). Thus, given the prospect of improved diagnostics, there is an enormous potential for detecting yet more [fictitious] "excess" thyroid cancers. In a study in the US that was performed during the period of active screening in 1974-79, it was determined that the incidence rate of malignant and other thyroid nodules was greater by 21-fold than it had been in the pre-1974 period. [Source: Z. Jaworowski, *21st Century Science*

and Technology, vol. 11 (1998), issue 1, p. 14.]'

W. L. Chen, Y. C. Luan, M. C. Shieh, S. T. Chen, H. T. Kung, K. L. Soong, Y. C. Yeh, T. S. Chou, S. H. Mong, J. T. Wu, C. P. Sun, W. P. Deng, M. F. Wu, and M. L. Shen, 'Is Chronic Radiation an Effective Prophylaxis Against Cancer?', published in the *Journal of American Physicians and Surgeons*, Vol. 9, No. 1, Spring 2004, page 6, available in PDF format [here](#):

'An extraordinary incident occurred 20 years ago in Taiwan. Recycled steel, accidentally contaminated with cobalt-60 ([low dose rate, gamma radiation emitter] half-life: 5.3 y), was formed into construction steel for more than 180 buildings, which 10,000 persons occupied for 9 to 20 years. They unknowingly received radiation doses that averaged 0.4 Sv, a collective dose of 4,000 person-Sv. Based on the observed seven cancer deaths, the cancer mortality rate for this population was assessed to be 3.5 per 100,000 person-years. Three children were born with congenital heart malformations, indicating a prevalence rate of 1.5 cases per 1,000 children under age 19.

'The average spontaneous cancer death rate in the general population of Taiwan over these 20 years is 116 persons per 100,000 person-years. Based upon partial official statistics and hospital experience, the prevalence rate of congenital malformation is 23 cases per 1,000 children. Assuming the age and income

distributions of these persons are the same as for the general population, it appears that significant beneficial health effects may be associated with this chronic radiation exposure. ...'

'Professor **Edward Lewis** used data from four independent populations exposed to radiation to demonstrate that the incidence of leukemia was linearly related to the accumulated dose of radiation. ... Outspoken scientists, including Linus Pauling, used **Lewis's** risk estimate to inform the public about the danger of nuclear fallout by estimating the number of leukemia deaths that would be caused by the test detonations. In May of 1957 **Lewis's** analysis of the radiation-induced human leukemia data was published as a lead article in Science magazine. In June he presented it before the Joint Committee on Atomic Energy of the US Congress.' – Abstract of thesis by Jennifer Caron, *Edward Lewis and Radioactive Fallout: the Impact of Caltech Biologists Over Nuclear Weapons Testing in the 1950s and 60s*, Caltech, January 2003.

Dr John F. Loutit of the Medical Research Council, Harwell, England, in 1962 wrote a book called *Irradiation of Mice and Men* (University of Chicago Press, Chicago and London), discrediting the pseudo-science from geneticist **Edward Lewis** on pages 61, and 78-79:

'... Mole [R. H. Mole, *Brit. J. Radiol.*, v32, p497, 1959] gave different groups of mice an integrated total of 1,000 r of X-rays over a period of 4 weeks. But the dose-rate - and therefore the

radiation-free time between fractions - was varied from 81 r/hour intermittently to 1.3 r/hour continuously. The incidence of leukemia varied from 40 per cent (within 15 months of the start of irradiation) in the first group to 5 per cent in the last compared with 2 per cent incidence in irradiated controls. ...

'What **Lewis** did, and which I have not copied, was to include in his table another group - spontaneous incidence of leukemia (Brooklyn, N.Y.) - who are taken to have received only natural background radiation throughout life at the very low dose-rate of 0.1-0.2 rad per year: the best estimate is listed as 2×10^{-6} like the others in the table. But the value of 2×10^{-6} was not calculated from the data as for the other groups; it was merely adopted. By its adoption and multiplication with the average age in years of Brooklynners - 33.7 years and radiation dose per year of 0.1-0.2 rad - a mortality rate of 7 to 13 cases per million per year due to background radiation was deduced, or some 10-20 per cent of the observed rate of 65 cases per million per year. ...

'All these points are very much against the basic hypothesis of **Lewis** of a linear relation of dose to leukemic effect irrespective of time. Unhappily it is not possible to claim for **Lewis**'s work as others have done, "It is now possible to calculate - within narrow limits - how many deaths from leukemia will result in any population from an increase in fall-out or other source of radiation" [Leading article in *Science*, vol. 125, p. 963, 1957]. This is just wishful journalese.

'The burning questions to me are not what are the numbers of leukemia to be expected from atom bombs or radiotherapy, but what is to be expected from natural background

Furthermore, to obtain estimates of these, I believe it is wrong to go to [1950s inaccurate, dose rate effect ignoring, data from] atom bombs, where the radiations are qualitatively different [i.e., including effects from neutrons] and, more important, the dose-rate outstandingly different.'

Samuel Glasstone and Philip J. Dolan, *The Effects of Nuclear Weapons*, 3rd ed., 1977, pp. 611-3:

'From the earlier studies of radiation-induced mutations, made with fruitflies [by Nobel Laureate Hermann J. Muller and other geneticists who worked on plants, who falsely hyped their insect and plant data as valid for mammals like humans during the June 1957 U.S. Congressional Hearings on fallout effects], it appeared that the number (or frequency) of mutations in a given population ... is proportional to the total dose ... More recent experiments with mice, however, have shown that these conclusions need to be revised, at least for mammals.

[Mammals are biologically closer to humans, in respect to DNA repair mechanisms, than short-lived insects whose life cycles are too small to have forced the evolutionary development of advanced DNA repair mechanisms, unlike mammals that need to survive for decades before reproducing.]
When exposed to X-rays or gamma rays, the mutation

frequency in these animals has been found to be dependent on the exposure (or dose) rate ...

'At an exposure rate of 0.009 roentgen per minute [0.54 R/hour], the total mutation frequency in female mice is indistinguishable from the spontaneous frequency.

[Emphasis added.] **There thus seems to be an exposure-rate threshold below which radiation-induced mutations are absent** ... with adult female mice ... a delay of at least seven weeks between exposure to a substantial dose of radiation, either neutrons or gamma rays, and conception causes the mutation frequency in the offspring to drop almost to zero. ... **recovery** in the female members of the population would bring about a substantial reduction in the 'load' of mutations in subsequent generations.'

George Bernard Shaw cynically explains groupthink brainwashing bias:

'We cannot help it because we are so constituted that we always believe finally what we wish to believe. The moment we want to believe something, we suddenly see all the arguments for it and become blind to the arguments against it. The moment we want to disbelieve anything we have previously believed, we suddenly discover not only that there is a mass of evidence against, but that this evidence was staring us in the face all the time.'

From the essay titled 'What is Science?' by Professor Richard P. Feynman, presented at the fifteenth annual meeting of the

National Science Teachers Association, 1966 in New York City, and published in *The Physics Teacher*, vol. 7, issue 6, 1968, pp. 313-20:

'... great religions are dissipated by following form without remembering the direct content of the teaching of the great leaders. In the same way, it is possible to follow form and call it science, but that is pseudo-science. In this way, we all suffer from the kind of tyranny we have today in the many institutions that have come under the influence of pseudoscientific advisers.

'We have many studies in teaching, for example, in which people make observations, make lists, do statistics, and so on, but these do not thereby become established science, established knowledge. They are merely an imitative form of science analogous to the South Sea Islanders' airfields - radio towers, etc., made out of wood. The islanders expect a great airplane to arrive. They even build wooden airplanes of the same shape as they see in the foreigners' airfields around them, but strangely enough, their wood planes do not fly. The result of this pseudoscientific imitation is to produce experts, which many of you are. ... you teachers, who are really teaching children at the bottom of the heap, can maybe doubt the experts. As a matter of fact, I can also define science another way: Science is the belief in the ignorance of experts.'

Richard P. Feynman, 'This Unscientific Age', in *The Meaning of It All*, Penguin Books, London,

1998, pages 106-9:

'Now, I say if a man is absolutely honest and wants to protect the populace from the effects of radioactivity, which is what our scientific friends often say they are trying to do, then he should work on the biggest number, not on the smallest number, and he should try to point out that the [natural cosmic] radioactivity which is absorbed by living in the city of Denver is so much more serious [than the smaller doses from fallout pollution] ... that all the people of Denver ought to move to lower altitudes.'

Feynman is *not* making a point about low level radiation effects, but about the politics of ignoring the massive natural background radiation dose, while provoking hysteria over much smaller measured fallout pollution radiation doses. Why is the anti-nuclear lobby so concerned about banning nuclear energy - which is not possible even in principle since most of our nuclear radiation is from the sun and from supernova debris contaminating the Earth from the explosion that created the solar system circa 4,540 million years ago - when they could cause much bigger radiation dose reductions to the population by concentrating on the bigger radiation source, natural background radiation. It is possible to shield natural background radiation by the air, e.g. by moving the population of high altitude cities to lower altitudes where there is more air between the people and outer space, or banning the use of high-altitude jet aircraft. The anti-nuclear lobby, as Feynman stated

back in the 1960s, didn't crusade to reduce the bigger dose from background radiation. Instead they chose to argue against the *much smaller* doses from fallout pollution. Feynman's argument is still today falsely interpreted as a political statement, when it is actually exposing pseudo-science and countering political propaganda. It is still ignored by the media. It has been pointed out by Senator Hickenlooper on page 1060 of the May-June 1957 U.S. Congressional Hearings before the Special Subcommittee on Radiation of the Joint Committee on Atomic Energy, *The Nature of Radioactive Fallout and Its Effects on Man*:

'I presume all of us would earnestly hope that we never had to test atomic weapons ... but by the same token I presume that we want to save thousands of lives in this country every year and we could just abolish the manufacture of [road accident causing] automobiles ...'

Dihydrogen monoxide is a potentially very dangerous chemical containing hydrogen and oxygen which has caused numerous severe burns by scalding and deaths by drowning, contributes to the greenhouse effect, accelerates corrosion and rusting of many metals, and contributes to the erosion of our natural landscape: 'Dihydrogen monoxide (DHMO) is colorless, odorless, tasteless, and kills uncounted thousands of people every year. Most of these deaths are caused by accidental inhalation of DHMO, but the dangers of dihydrogen monoxide do not end there. Prolonged

exposure to its solid form causes severe tissue damage. Symptoms of DHMO ingestion can include excessive sweating and urination, and possibly a bloated feeling, nausea, vomiting and body electrolyte imbalance. For those who have become dependent, DHMO withdrawal means certain death.'

From the site for the petition against dihydrogen monoxide:

'Please sign this petition and help stop This Invisible Killer. Get the government to do something now. ... Contamination Is Reaching Epidemic Proportions! Quantities of dihydrogen monoxide have been found in almost every stream, lake, and reservoir in America today. But the pollution is global, and the contaminant has even been found in Antarctic ice. DHMO has caused millions of dollars of property damage in the Midwest, and recently California.'

A recent example of the pseudoscientific radiation 'education' masquerading as science that Feynman (quoted above) objected to in the 1960s was published in 2009 in an article called 'The proportion of childhood leukaemia incidence in Great Britain that may be caused by natural background ionizing radiation' in *Leukemia*, vol. 23 (2009), pp. 770–776, which falsely asserts - in contradiction to the evidence that the no-threshold model is *contrary* to Hiroshima and Nagasaki data: 'Risk models based primarily on studies of the Japanese atomic bomb

survivors imply that low-level exposure to ionizing radiation, including ubiquitous natural background radiation, also raises the risk of childhood leukaemia. Using two sets of recently published leukaemia risk models and estimates of natural background radiation red-bone-marrow doses received by children, about 20% of the cases of childhood leukaemia in Great Britain are predicted to be attributable to this source.' The authors of this pseudoscience which is the opposite of the facts are R. Wakeford (Dalton Nuclear Institute, University of Manchester, Manchester, UK), G. M. Kendall (Childhood Cancer Research Group, Oxford, UK), and M. P. Little (Department of Epidemiology and Public Health, Imperial College, London, UK). It is disgusting and sinful that the facts about childhood leukemia are being lied on so blatantly for non-scientific purposes, and it is to be hoped that these leukemia investigators will either correct their errors or alternatively be banned from using scientific literature to promote false dogma for deception until they mend the error of their ways and repent their sins in this matter.

Protein P53, discovered only in 1979, is encoded by gene TP53, which occurs on human chromosome 17. P53 also occurs in other mammals including mice, rats and dogs. P53 is one of the proteins which continually repairs breaks in DNA, which easily breaks at body temperature: the DNA in each cell of the human

body suffers at least two single strand breaks every second, and one double strand (i.e. complete double helix) DNA break occurs at least once every 2 hours (5% of radiation-induced DNA breaks are double strand breaks, while 0.007% of spontaneous DNA breaks at body temperature are double strand breaks)! Cancer occurs when several breaks in DNA happen to occur by chance at nearly the same time, giving several loose strand ends at once, which repair proteins like P53 then repair incorrectly, causing a mutation which can be proliferated somatically. This cannot occur when only one break occurs, because only two loose ends are produced, and P53 will reattach them correctly. But if low-LET ionising radiation levels are increased to a certain extent, causing more single strand breaks, P53 works faster and is able deal with faster breaks as they occur, so that multiple broken strand ends do not arise. This prevents DNA strands being repaired incorrectly, and prevents cancer - a result of mutation caused by faults in DNA - from arising. Too much radiation of course overloads the P53 repair mechanism, and then it cannot repair breaks as they occur, so multiple breaks begin to appear and loose ends of DNA are wrongly connected by P53, causing an increased cancer risk.

1. DNA-damaging free radicals are equivalent to a source of sparks which is always present naturally.

2. Cancer is equivalent the fire you get if the sparks are allowed to ignite the gasoline, i.e. if the free radicals are allowed to damage

DNA without the damage being repaired.

3. Protein P53 is equivalent to a fire suppression system which is constantly damping out the sparks, or repairing the damaged DNA so that cancer doesn't occur.

In this way of thinking, the 'cause' of cancer will be down to a failure of a DNA repairing enzyme like protein P53 to repair the damage.

Dr Jane Orient, 'Homeland Security for Physicians', *Journal of American Physicians and Surgeons*, vol. 11, number 3, Fall 2006, pp. 75-9:

'In the 1960s, a group of activist physicians called Physicians for Social Responsibility (PSR) undertook to "educate the medical profession and the world about the dangers of nuclear weapons," beginning with a series of articles in the *New England Journal of Medicine*. [Note that journal was publishing information for anti-civil defense propaganda back in 1949, e.g. the article in volume 241, pp. 647-53 of *New England Journal of Medicine* which falsely suggests that civil defense in nuclear war would be hopeless because a single burned patient in 1947 with 40% body area burns required 42 oxygen tanks, 36 pints of plasma, 40 pints of whole blood, 104 pints of fluids, 4,300 m of gauze, 3 nurses and 2 doctors. First, only unclothed persons in direct line of sight without shadowing can get 40% body area burns from thermal radiation, second, duck and cover offers protection in a nuclear attack warning, and G. V. LeRoy had already

published, two years earlier, in J.A.M.A., volume 134, 1947, pp. 1143-8, that less than 5% of burns in Hiroshima and Nagasaki were caused by building and debris fires. In medicine it is always possible to expend vast resources on patients who are fatally injured. In a mass casualty situation, doctors should not give up just because they don't have unlimited resources; as at Hiroshima and Nagasaki, they would need to do their best with what they have.] On its

website, www.psr.org, the group boasts that it "led the campaign to end atmospheric nuclear testing." With this campaign, the linear no-threshold (LNT) theory of radiation carcinogenesis became entrenched. It enabled activists to calculate enormous numbers of potential casualties by taking a tiny risk and multiplying it by the population of the earth. As an enduring consequence, the perceived risks of radiation are far out of proportion to actual risks, causing tremendous damage to the American nuclear industry. ... Efforts to save lives were not only futile, but unethical: Any suggestion that nuclear war could be survivable increased its likelihood and was thus tantamount to warmongering, PSR spokesmen warned. ...

'For the mindset that engendered and enables this situation, which jeopardizes the existence of the United States as a nation as well as the lives of millions of its citizens, some American physicians and certain prestigious medical organizations bear a heavy responsibility.

'Ethical physicians should stand ready to help patients to the best of their ability, and not advocate sacrificing them in the name of a political agenda. **Even very basic knowledge, especially combined with simple, inexpensive advance preparations, could save countless lives.'**

Dr Theodore B. Taylor, *Proceedings of the Second Interdisciplinary Conference on Selected Effects of a General War*, DASIAC Special Report 95, July 1969, vol. 2, DASA-2019-2, AD0696959, page 298 (also [linked here](#)):

'I must just say that as far as I'm concerned I have had some doubts about whether we should have had a civil defense program in the past. I have no doubt whatsoever now, for this reason, that I've seen **ways in which the deterrent forces can fail to hold things off, so that no matter what our national leaders do, criminal organizations, what have you, groups of people over which we have no control whatsoever, can threaten other groups of people.'**

This point of Taylor is the key fact on the morality. Suppose we disarm and abandon nuclear power. That won't stop fallout from a war, terrorists, or a foreign reactor blast from coming. Civil defence knowledge is needed. Even when America has ABM, it will be vulnerable to wind carried fallout. No quantity of pacifist hot air will protect people against radiation.

Charles J. Hitch and Roland B.

McKean of the RAND Corporation in their 1960 book *The Economics of Defense in the Nuclear Age*, Harvard University Press, Massachusetts, pp. 310-57:

'With each side possessing only a small striking force, a small amount of cheating would give one side dominance over the other, and the incentive to cheat and prepare a preventative attack would be strong ... With each side possessing, say, several thousand missiles, a vast amount of cheating would be necessary to give one side the ability to wipe out the other's striking capability. ... the more extensive a disarmament agreement is, the smaller the force that a violator would have to hide in order to achieve complete domination. Most obviously, "the abolition of the weapons necessary in a general or 'unlimited' war" would offer the most insuperable obstacles to an inspection plan, since the violator could gain an overwhelming advantage from the concealment of even a few weapons.'

Disarmament after World War I caused the following problem which led to World War II (reported by Winston S. Churchill in the London Daily Express newspaper of November 1, 1934):

'Germany is arming secretly, illegally and rapidly. A reign of terror exists in Germany to keep secret the feverish and terrible preparations they are making.'

British Prime Minister Thatcher's address to the United Nations General Assembly on disarmament on 23 June 1982, where she pointed out that in the

years since the nuclear attacks on Hiroshima and Nagasaki, 10 million people had been killed by 140 non-nuclear conflicts:

'The fundamental risk to peace is not the existence of weapons of particular types. It is the disposition on the part of some states to impose change on others by resorting to force against other nations ... Aggressors do not start wars because an adversary has built up his own strength. They start wars because they believe they can gain more by going to war than by remaining at peace.'

J. D. Culshaw, the then Director of the U.K. Home Office Scientific Advisory Branch, stated in his article in the Scientific Advisory Branch journal *Fission Fragments*, September 1972 (issue No. 19), classified 'Restricted':

'Apart from those who don't want to know or can't be bothered, there seem to be three major schools of thought about the nature of a possible Third World War ...

* 'The first group think of something like World War II but a little worse ...

* '... the second of World War II but very much worse ...

* 'and the third group think in terms of a catastrophe ...

'When the Armageddon concept is in favour, the suggestion that such problems exist leads to "way out" research on these phenomena, and it is sufficient to mention a new catastrophic threat [e.g., 10 years later this was done by Sagan with "nuclear winter" hype, which turned out to be fake

because modern concrete cities can't produce firestorms like 1940s wooden-built areas of Hamburg, Dresden and Hiroshima] to stimulate research into the possibilities of it arising. The underlying appeal of this concept is that if one could show that the execution of all out nuclear, biological or chemical warfare would precipitate the end of the world, no one but a mad man would be prepared to initiate such a war. [However, as history proves, plenty of mad men end up gaining power and leading countries into wars.]'

J. K. S. Clayton, then Director of the U.K. Home Office Scientific Advisory Branch, stated in his introduction, entitled *The Challenge - Why Home Defence?*, to the 1977 Home Office Scientific Advisory Branch *Training Manual for Scientific Advisers*:

'Since 1945 we have had nine wars - in Korea, Malaysia and Vietnam, between China and India, China and Russia, India and Pakistan and between the Arabs and Israelis on three occasions. We have had confrontations between East and West over Berlin, Formosa and Cuba. There have been civil wars or rebellions in no less than eleven countries and invasions or threatened invasions of another five. Whilst it is not suggested that all these incidents could have resulted in major wars, they do indicate the aptitude of mankind to resort to a forceful solution of its problems, sometimes with success. ...'

It is estimated that Mongol invaders exterminated 35 million Chinese between 1311-40, without

modern weapons. Communist Chinese killed 26.3 million dissenters between 1949 and May 1965, according to detailed data compiled by the Russians on 7 April 1969. The Soviet communist dictatorship killed 40 million dissenters, mainly owners of small farms, between 1917-59. Conventional (non-nuclear) air raids on Japan killed 600,000 during World War II. The single incendiary air raid on Tokyo on 10 March 1945 killed 140,000 people (more than the total for nuclear bombs on Hiroshima and Nagasaki combined) at much less than the \$2 billion expense of the Hiroshima and Nagasaki nuclear bombs! Non-nuclear air raids on Germany during World War II killed 593,000 civilians.

House of Lords debate *Nuclear Weapons: Destructive Power*, published in Hansard, 14 June 1988:

Lord Hailsham of Saint Marylebone: 'My Lords, if we are going into the question of lethality of weapons and seek thereby to isolate the nuclear as distinct from the so-called conventional range, is there not a danger that the public may think that Vimy, Passchendaele and Dresden were all right—sort of tea parties—and that nuclear war is something which in itself is unacceptable?'

Lord Trefgarne: 'My Lords, the policy of making Europe, or the rest of the world, safe for conventional war is not one that I support.'

House of Commons debate *Civil Defence* published in

Hansard, 26 October 1983:

Mr. Bill Walker (Tayside, North): 'I remind the House that more people died at Stalingrad than at Hiroshima or Nagasaki. Yet people talk about fighting a conventional war in Europe as if it were acceptable. One rarely sees demonstrations by the so-called peace movement against a conventional war in Europe, but it could be nothing but ghastly and horrendous. The casualties would certainly exceed those at Stalingrad, and that cannot be acceptable to anyone who wants peace'

On 29 October 1982, Thatcher stated of the Berlin Wall: 'In every decade since the war the Soviet leaders have been reminded that their pitiless ideology only survives because it is maintained by force. But the day comes when the anger and frustration of the people is so great that force cannot contain it. Then the edifice cracks: the mortar crumbles ... one day, liberty will dawn on the other side of the wall.'

On 22 November 1990, she said: 'Today, we have a Europe ... where the threat to our security from the overwhelming conventional forces of the Warsaw Pact has been removed; where the Berlin Wall has been torn down and the Cold War is at an end. These immense changes did not come about by chance. They have been achieved by strength and resolution in defence, and by a refusal ever to be intimidated.'

'The case for civil defence stands regardless of whether a nuclear deterrent is necessary or not. ... Even if the U.K. were

not itself at war, we would be as powerless to prevent fallout from a nuclear explosion crossing the sea as was King Canute to stop the tide.' - U.K. Home Office leaflet, Civil Defence, 1982.

'... peace cannot be guaranteed absolutely. Nobody can be certain, no matter what policies this or any other Government were to adopt, that the United Kingdom would never again be attacked. Also we cannot tell what form such an attack might take. Current strategic thinking suggests that if war were to break out it would start with a period of conventional hostilities of uncertain duration which might or might not escalate to nuclear conflict. ... while nuclear weapons exist there must always be a chance, however small, that they will be used against us [like gas bombs in World War II]. ... as a consequence of war between other nations in which we were not involved fall out from nuclear explosions could fall on a neutral Britain. ... conventional war is not the soft option that is sometimes suggested. It is also too easily forgotten that in World War II some 50 million people died and that conventional weapons have gone on killing people ever since 1945 without respite.' - - **The Minister of State, Scottish Office (Lord Gray of Contin), House of Lords debate on Civil Defence (General Local Authority Functions) Regulations, Hansard, vol. 444, cc. 523-49, 1 November 1983.**

'All of us are living in the light and warmth of a huge hydrogen bomb, 860,000 miles across and 93

million miles away, which is in a state of continuous explosion.' - Dr Isaac Asimov.

'Dr Edward Teller remarked recently that the origin of the earth was somewhat like the explosion of the atomic bomb...' – Dr Harold C. Urey, *The Planets: Their Origin and Development*, Yale University Press, New Haven, 1952, p. ix.

'But compared with a supernova a hydrogen bomb is the merest trifle. For a supernova is equal in violence to about a million million million million hydrogen bombs all going off at the same time.' – Sir Fred Hoyle (1915-2001), *The Nature of the Universe*, Pelican Books, London, 1963, p. 75.

'In fact, physicists find plenty of interesting and novel physics in the environment of a nuclear explosion. Some of the physical phenomena are valuable objects of research, and promise to provide further understanding of nature.' – Dr Harold L. Brode, The RAND Corporation, 'Review of Nuclear Weapons Effects,' *Annual Review of Nuclear Science*, Volume 18, 1968, pp. 153-202.

'It seems that similarities do exist between the processes of formation of single particles from nuclear explosions and formation of the solar system from the debris of a [4 x 10²⁸ megatons of TNT equivalent, type Ia] supernova explosion. We may be able to learn much more about the origin of the earth, by further investigating the process of radioactive fallout from the nuclear weapons tests.' – Dr Paul K. Kuroda (1917-2001), University of Arkansas, 'Radioactive Fallout in Astronomical Settings: Plutonium-

244 in the Early Environment of the Solar System,' pages 83-96 of *Radionuclides in the Environment: A Symposium Sponsored By the Division of Nuclear Chemistry and Technology At the 155th Meeting of the American Chemical Society, San Francisco, California, April 1-3, 1968*, edited by Symposium Chairman Dr Edward C. Freiling (1922-2000) of the U.S. Naval Radiological Defense Laboratory, Advances in Chemistry Series No. 93, American Chemical Society, Washington, D.C., 1970.

Dr Paul K. Kuroda (1917-2001) in 1956 correctly predicted the existence of water-moderated natural nuclear reactors in flooded uranium ore seams, which were discovered in 1972 by French physicist Francis Perrin in three ore deposits at Oklo in Gabon, where sixteen sites operated as natural nuclear reactors with self-sustaining nuclear fission 2,000 million years ago, each lasting several hundred thousand years, averaging 100 kW. The radioactive waste they generated remained in situ for a period of 2,000,000,000 years without escaping. They were discovered during investigations into why the U-235 content of the uranium in the ore was only 0.7171% instead of the normal 0.7202%. Some of the ore, in the middle of the natural reactors, had a U-235 isotopic abundance of just 0.440%. Kuroda's brilliant paper is entitled, 'On the Nuclear Physical Stability of the Uranium Minerals', published in the *Journal of Chemical Physics*, vol. 25 (1956), pp. 781-782 and 1295-1296.

A type Ia supernova explosion,

always yielding 4×10^{28} megatons of TNT equivalent, results from the critical mass effect of the collapse of a white dwarf as soon as its mass exceeds 1.4 solar masses due to matter falling in from a companion star. The degenerate electron gas in the white dwarf is then no longer able to support the pressure from the weight of gas, which collapses, thereby releasing enough gravitational potential energy as heat and pressure to cause the fusion of carbon and oxygen into heavy elements, creating massive amounts of radioactive nuclides, particularly intensely radioactive nickel-56, but half of all other nuclides (including uranium and heavier) are also produced by the 'R' (rapid) process of successive neutron captures by fusion products in supernovae explosions. Type Ia supernovae occur typically every 400 years in the Milky Way galaxy. On 4 July 1054, Chinese astronomers observed in the sky (without optical instruments) the bright supernova in the constellation Taurus which today is still visible as the Crab Nebula through telescopes. The Crab Nebula debris has a diameter now of 7 light years and is still expanding at 800 miles/second. The supernova debris shock wave triggers star formation when it encounters hydrogen gas in space by compressing it and seeding it with debris; bright stars are observed in the Orion Halo, the 300 light year diameter remains of a supernova. It is estimated that when the solar system was forming 4,540 million years ago, a supernova occurred around 100 light years away, and the heavy

radioactive debris shock wave expanded at 1,000 miles/second. Most of the heavy elements including iron, silicon and calcium in the Earth and people are the stable end products of originally radioactive decay chains from the space burst fallout of a 7×10^{26} megatons thermonuclear explosion, created by fusion and successive neutron captures after the implosion of a white dwarf, a supernova explosion.

How would a 10^{55} megaton hydrogen bomb explosion differ from the **big bang**? Ignorant answers biased in favour of curved spacetime (ignoring quantum gravity!) abound, such as claims that explosions can't take place in 'outer space' (disagreeing with the facts from nuclear space bursts by Russia and America in 1962, not to mention natural supernova explosions in space!) and that explosions produce sound waves in air by definition! There are indeed major differences in the nuclear reactions between the big bang and a nuclear bomb. But it is helpful to notice the solid physical fact that implosion systems suggest the mechanism of gravitation: in implosion, TNT is well-known to produce an *inward* force on a bomb core, but Newton's 3rd law says there is an equal and opposite reaction force *outward*. In fact, you can't have a radially outward force without an inward reaction force! It's the rocket principle. The rocket accelerates (with force $F = ma$) *forward* by virtue of the recoil from accelerating the exhaust gas (with force $F = -ma$) in the *opposite* direction! Nothing massive accelerates without an equal and

opposite reaction force. Applying this *fact* to the **measured $6 \times 10^{-10} \text{ ms}^{-2} \sim Hc$ cosmological acceleration of matter radially outward** from observers in the universe which **was predicted accurately in 1996** and later observationally discovered in 1999 (by Perlmutter, et al.), we find an outward force $F = ma$ and inward reaction force by the 3rd law. **The inward force allows quantitative predictions, and is mediated by gravitons, predicting gravitation in a checkable way (unlike string theory, which is just a landscape of 10^{500} different perturbative theories and so can't make any falsifiable predictions about gravity).** So it seems as if nuclear explosions do indeed provide helpful analogies to natural features of the world, and the mainstream lambda-CDM model of cosmology - with its force-fitted unobserved *ad hoc* speculative 'dark energy' - ignores and sweeps under the rug major quantum gravity effects which increase the physical understanding of particle physics, particularly force unification and the relation of gravitation to the existing electroweak $SU(2) \times U(1)$ section of the Standard Model of fundamental forces.

Richard Lieu, Physics Department, University of Alabama, 'Lambda-CDM cosmology: how much suppression of credible evidence, and does the model really lead its competitors, using all evidence?', <http://arxiv.org/abs/0705.2462>.

Even Einstein grasped the possibility that general relativity's

lambda-CDM model is at best just a classical approximation to quantum field theory, at the end of his life when he wrote to Besso in 1954:

'I consider it quite possible that physics cannot be based on the [classical differential equation] field principle, i.e., on continuous structures. In that case, nothing remains of my entire castle in the air, [non-quantum] gravitation theory included ...'

'Science is the organized skepticism in the reliability of expert opinion.' - Professor Richard P. Feynman (quoted by Professor Lee Smolin, *The Trouble with Physics*, Houghton-Mifflin, New York, 2006, p. 307).

'The expression of dissenting views may not seem like much of a threat to a powerful organization, yet sometimes it triggers an amazingly hostile response. The reason is that a single dissenter can puncture an illusion of unanimity. ... Among those suppressed have been the engineers who tried to point out problems with the Challenger space shuttle that caused it to blow up. More fundamentally, suppression is a denial of the open dialogue and debate that are the foundation of a free society. Even worse than the silencing of dissidents is the chilling effect such practices have on others. For every individual who speaks out, numerous others decide to play it safe and keep quiet. More serious than external censorship is the problem of self-censorship.'

— Professor Brian Martin,
University of Wollongong,
'Stamping Out Dissent',

Newsweek, 26 April 1993, pp. 49-50

In 1896, Sir James Mackenzie-Davidson asked Wilhelm Röntgen, who discovered X-rays in 1895: 'What did you think?' Röntgen replied: 'I did not think, I investigated.' The reason? Cathode ray expert J. J. Thomson in 1894 saw glass fluorescence far from a tube, but due to prejudice (expert opinion) he avoided investigating that X-ray evidence! 'Science is the organized skepticism in the reliability of expert opinion.' - Richard Feynman, in Lee Smolin, *The Trouble with Physics*, Houghton-Mifflin, 2006, p. 307.

Mathematical symbols in this blog: your computer's browser needs access to standard character symbol sets to display Greek symbols for mathematical physics. If you don't have the symbol character sets installed, the density symbol ' ρ ' (*Rho*) will appear as 'r' and the ' π ' (*Pi*) symbol will as 'p', causing confusion with the use of 'r' for radius and 'p' for momentum in formulae. This problem exists with Mozilla Firefox 3, but not with Microsoft Explorer which displays Greek symbols.

About Me



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8728.

<http://www.math.columbia.edu/~woit/worksheets/215/comment-4082>.

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From 1945-62, America tested 216 nuclear weapons in the atmosphere, totalling 154 megatons, with a mean yield of 713 kilotons

From 1949-62, Russia tested 214 nuclear weapons in the atmosphere, totalling 281 megatons, with a mean yield of 1.31 megatons

From 1952-8, Britain tested 21 nuclear weapons in the atmosphere, totalling 10.8 megatons, with a mean yield of 514 kilotons

From 1960-74, France tested 46 nuclear weapons in the atmosphere, totalling 11.4 megatons, with a mean yield of 248 kilotons

From 1964-80, China tested 23 nuclear weapons in the atmosphere, totalling 21.5 megatons, with a mean yield of 935 kilotons

In summary, from 1945-80, America, Russia, Britain, France and China tested 520 nuclear weapons in the atmosphere, totalling 478.7 megatons, with a mean yield of 921 kilotons

Mean yield of the 5,192 nuclear warheads and bombs in the deployed Russian nuclear stockpile as of January 2009: 0.317 Mt. Total yield: 1,646 Mt.

Mean yield of the 4,552 nuclear warheads and bombs in the

deployed U.S. nuclear stockpile
as of January 2007: 0.257 Mt.
Total yield: 1,172 Mt.

For diffraction damage where damage areas scale as the two-thirds power of explosive yield, this stockpile's area damage potential can be compared to the 20,000,000 conventional bombs of 100 kg size (2 megatons of TNT equivalent total *energy*) dropped on Germany during World War II: (Total nuclear bomb blast diffraction damaged ground *area*)/(Total conventional blast diffraction damaged ground *area*) = $[4,552 \times (0.257 \text{ Mt})^{2/3}] / [20,000,000 \times (0.0000001 \text{ Mt})^{2/3}] = 1,840/431 = 4.3$. Thus, although the entire U.S. stockpile has a TNT *energy* equivalent to 586 times that of the 2 megatons of conventional bombs dropped on Germany in World War II, it is only capable of causing 4.3 times as much diffraction type damage area, because *any given amount of explosive energy is far more efficient when distributed over many small explosions than in a single large explosion! Large explosions are inefficient because they cause unintended collateral damage, wasting energy off the target area and injuring or damaging unintended targets!*

In a controlled sample of 36,500 survivors, 89 people got leukemia over a 40 year period, above the number in the unexposed control group. (Data: *Radiation Research*, volume 146, 1996, pages 1-27.) Over 40 years, in 36,500 survivors monitored, there were 176 leukemia deaths which is 89 more than the control (unexposed) group got naturally. There were

4,687 other cancer deaths, but that was merely 339 above the number in the control (unexposed) group, so this is statistically a much smaller rise than the leukemia result. Natural leukemia rates, which are very low in any case, were increased by 51% in the irradiated survivors, but other cancers were merely increased by just 7%. Adding all the cancers together, the total was 4,863 cancers (virtually all natural cancer, nothing whatsoever to do with radiation), which is just 428 more than the unexposed control group. Hence, the total increase over the natural cancer rate due to bomb exposure was only 9%, spread over a period of 40 years. There was no increase whatsoever in genetic malformations.

There should be a note here about how unnatural radioactive pollution is (not) in space: the earth's atmosphere is a radiation shield equivalent to being protected behind a layer of water 10 metres thick. This reduces the cosmic background radiation by a factor of 100 of what it would be without the earth's atmosphere. Away from the largely uninhabited poles, the Earth's magnetic field also protects us against charged cosmic radiations, which are deflected and end up spiralling around the magnetic field at high altitude, in the Van Allen trapped radiation belts. On the Moon, for example, there is no atmosphere or significant magnetic field so the natural background radiation exposure rate at solar minimum is 1 milliRoentgen per hour (about 10 microSieverts/hour) some

100 times that on the Earth (0.010 milliRoentgen per hour or about 0.10 microSieverts/hour). The Apollo astronauts visiting the Moon wore dosimeters and they received an average of 275 milliRoentgens (about 2.75 milliSieverts) of radiation (well over a year's exposure to natural background at sea level) in over just 19.5 days. It is a lot more than that during a solar flare, which is one of the concerns for astronauts to avoid (micrometeorites are another concern in a soft spacesuit).

The higher up you are above sea level, the less of the atmosphere there is between you and space, so the less shielding you have to protect you from the intense cosmic space radiations (emitted by thermonuclear reactors we call 'stars', as well as distant supernovae explosions). At sea level, the air above you constitutes a radiation shield of 10 tons per square metre or the equivalent of having a 10 metres thick water shield between you and outer space. As you go up a mountain or up in an aircraft, the amount of atmosphere between you and space decreases, thus radiation levels increase with altitude because there is less shielding. *The normal background radiation exposure rate shoots up by a factor of 20, from 0.010 to 0.20 milliRoentgens per hour, when any airplane ascends from sea level to 36,000 feet cruising altitude. (The now obsolete British Concorde supersonic transport used to maintain radiation-monitoring*

equipment so that it could drop to lower-altitude flight routes if excessive cosmic radiation due to solar storms were detected.) Flight aircrew get more radiation exposure than many nuclear industry workers at nuclear power plants. Residents of the high altitude city of Denver get 100 milliRoentgens (about 1 milliSievert) more annual exposure than a resident of Washington, D.C., but the mainstream anti-radiation cranks don't campaign for the city to be shut to save kids radiation exposure, for mountain climbing to be banned, etc.!

1994 revised Introduction to Kearny's Nuclear War Survival Skills, by Dr Edward Teller, January 14, 1994:

'If defense is neglected these weapons of attack become effective. They become available and desirable in the eyes of an imperialist dictator, even if his means are limited. Weapons of mass destruction could become equalizers between nations big and small, highly developed and primitive, if defense is neglected. If defense is developed and if it is made available for general prevention of war, weapons of aggression will become less desirable. Thus defense makes war itself less probable. ... One psychological defense mechanism against danger is to forget about it. This attitude is as common as it is disastrous. It may turn a limited danger into a fatal difficulty.'

Advice of Robert Watson-Watt

(Chief Scientist on the World War II British Radar Project, defending Britain against enemy attacks): 'Give them the third best to go on with, the second best comes too late, the best never comes.'

From Wikipedia (a source of groupthink): 'Groupthink is a type of thought exhibited by group members who try to minimize conflict and reach consensus without critically testing, analyzing, and evaluating ideas. Individual creativity, uniqueness, and independent thinking are lost in the pursuit of group cohesiveness, as are the advantages of reasonable balance in choice and thought that might normally be obtained by making decisions as a group. During groupthink, members of the group avoid promoting viewpoints outside the comfort zone of consensus thinking. A variety of motives for this may exist such as a desire to avoid being seen as foolish, or a desire to avoid embarrassing or angering other members of the group. Groupthink may cause groups to make hasty, irrational decisions, where individual doubts are set aside, for fear of upsetting the group's balance.'

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of low dose radiation in
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Samuel Cohen's 2006 book on
the history of the neutron
bomb, the most moral
weapon ever invented due to
its purely military deterrent
capabilities, and the pseudo-
scientific propaganda war he
has had to endure from the
enemies of deterrence

◆ Karl-Ludvig Grønhaug's
EMP reports page with useful
PDF downloads on prompt
EMP and MHD-EMP
measurements from nuclear

tests (Norwegian language)

◆ Colonel Derek L. Duke's factual book on nuclear weapons accidents, *Chasing Loose Nukes, as told to Fred Dungan*

◆ The H-Bomb and the birth of the Universe: 'For 100 Million years after time began, the universe was dark as pitch. The clouds of hydrogen condensed into huge nuclear fireballs. That moment-when the universe first lit up-was the moment of creation that matters...'

◆ American *EMP Interaction* manual: comprehensive theory of both the EMP source mechanism and the EMP pick-up in cables and antenna by electromagnetic inductance (30 MB PDF file)

◆ British Mission to Japan, *The Effects of the Atomic Bombs at Hiroshima and Nagasaki*, H. M. Stationery Office, London, 1946 (high quality 42.5 MB pdf file).

◆ 1950 edition (high quality 82.7 MB PDF file) of U.S. Department of Defense book *The Effects of Atomic Weapons*

◆ 1957 edition (high quality 90.8 MB PDF file) of subsequently deleted sections on nuclear tests of civil defense countermeasures from U.S. Department of Defense book *The Effects of Nuclear Weapons*

◆ 1957 edition (low quality 30.6 MB PDF file) of entire U.S. Department of Defense

book *The Effects of Nuclear Weapons*

◆ 1962/64 edition (high quality 188 MB PDF file) of major revised sections in the U.S. Department of Defense book *The Effects of Nuclear Weapons*

◆ 1962/64 edition (high quality 43.8 MB PDF file) of 74 pages of subsequently deleted material dealing with thermal ignition of houses at nuclear tests and civil defense countermeasures chapter, from the U.S. Department of Defense book *The Effects of Nuclear Weapons*

◆ 1977 edition (single 36.8 MB PDF file) of U.S. Department of Defense book *The Effects of Nuclear Weapons*

◆ U.S. Pacific nuclear test effects reports library; documents available on line as PDF files

◆ U.S. Department of Energy Opennet Documents Online (includes many Nevada nuclear test reports as PDF files)

◆ Defense Technical Information Center (DTIC)'s Scientific and Technical Information Network (STINET) Service (other declassified Nevada and Pacific test reports)

◆ Highlights from ABM testing history

◆ THAAD Goes Another ABM Test

◆ Wm. Robert Johnston's

nuclear testing statistics

◆ Wm. Robert Johnston's list of high altitude nuclear tests
 ◆ Carey Sublette's Nuclear Weapon Archive (it contains errors from Chuck Hansen's compilation, and it is concentrated on bomb building, not on civil defence countermeasure evaluations done at nuclear tests)

- Quantum Field Theory
- Los Alamos Science journal
- Excellent particle physics gauge theory (fundamental force interaction) issue of Los Alamos Science journal

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